

3M Converter Markets



Selection Guide

Converting technology into application success





For more than 50 years, 3M industrial adhesives, labeling materials, and specialty products have been helping companies worldwide increase production efficiency and improve product performance, appearance, and identification. Today, 3M Converter Markets is a single resource for a versatile and comprehensive line of products and solutions available to the converting industry.

In this guide you will find the complete 3M portfolio, complementing the Converter Solutions website at www.3M.com/converter. Online you will find capabilities ranging from automated product selectors to training tools, and the latest technologies.

3M is constantly working to deliver innovative technology that strengthens

you with competitive advantages in rapidly changing markets.

Solutions through personal service...

If you can't find exactly what you need in the guide or online, during normal business hours product assistance specialists at **1-800-223-7427** will answer questions and help you identify products for your application.

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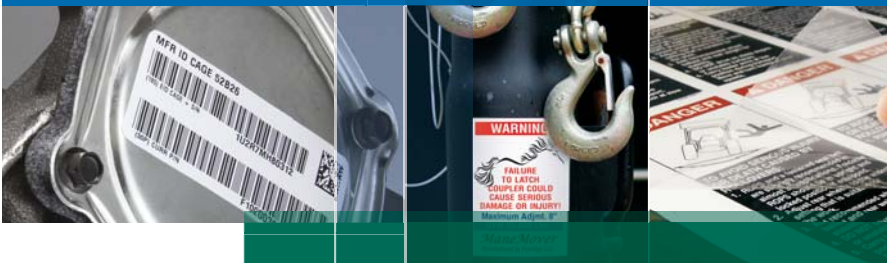
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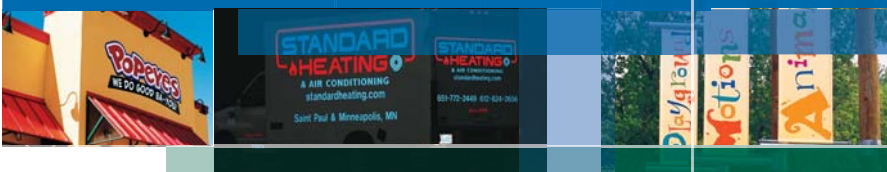
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Using the Selection Guide

To select the correct 3M solution, you first need to determine the appropriate adhesive. Selecting the proper adhesive for any application must include consideration of the substrate surface characteristics and the application performance requirements.

1. To start building your product, first determine which adhesive best meets your need. The Adhesive Family descriptions on pages 10 and 11 and the Adhesive Selection charts on pages 12 and 13 highlight the performance features and characteristics of 3M adhesives.

More detailed information about 3M adhesives temperature, environmental and other performance characteristics are included in the Adhesive Properties charts on pages 14 and 15.

2. If you are considering a label material, you can choose the appropriate facestock suitable for your application by looking at the Facestock Properties chart on pages 41-44. This chart shows environmental performance and processing properties of our various facestock materials.

For help in selecting the right liner for the job, reference the chart on page 45 or page 74.

For information on a specific product, consult the numerical product index beginning on page 112.



Fundamentals of Adhesion

Selecting the proper adhesives for a nameplate, label or membrane switch application requires consideration of environmental, surface, appearance and other performance requirements. Our purpose here is to cover some of the principles of adhesion.

Surface contact is fundamental to adhesive performance. To maximize adhesive contact on a surface:

- It must be dry and free of contaminants.
- Firm pressure must be applied to increase the flow and contact of the adhesive with the substrate.
- Time and temperature will increase the surface contact and adhesion values.
- Oil contaminated materials may be addressed with the 3M™ Adhesive 300LSE or 350 families.

Adhesion is the molecular force of attraction between unlike materials. The strength of attraction is determined by the surface energy of the material. The higher the surface energy, the greater the molecular attraction. The lower the surface energy, the weaker the attractive forces.

Greater molecular attraction results in increased contact between an adhesive and substrate. In other words, a high surface energy material, the adhesive can flow (or “wet-out”) to assure a stronger bond.

Consider an automobile that has not been waxed for a long time. When water contacts the surface it spreads in large puddles. The unwaxed car surface exhibits high surface energy — the molecular attraction allows the water to flow.

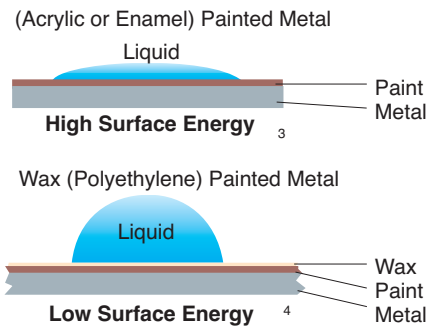
In comparison, water beads up into small spheres on freshly waxed car. It is an example of low surface energy — the liquid (or adhesive) does not flow out.

Surface energy is measured by dynes per centimeter. The dyne level is the actual reading of the critical surface tension.

Modified acrylic and synthetic adhesives with better flow (or “wet-out”) characteristics have been developed to adhere to low surface energy substrates. The Surface Energy Chart below compares the relative surface energy of commonly used substrates.

3M™ High Performance Acrylic Adhesive 200MP will not readily adhere to substrates categorized as having “low surface energy.” However, 3M™ Adhesives 300, 320, 350, and 300LSE modified acrylics or 700 synthetic rubber adhesives have been designed to adhere to low surface energy plastics, and should be considered for those applications.

Wettability Principle



This illustration demonstrates the effect of surface energy on adhesive interfacial contact. High surface energy materials draw the adhesive closer for high bond strength.

Surface Energy Chart

Metal Surfaces (High Surface Energy)		High Surface Energy Plastics (HSE)		Low Surface Energy Plastics (LSE)	
	5		6		7
mJ/m²	Surfaces	mJ/m²	Surfaces	mJ/m²	Surfaces
1103	Copper	50	Kapton® Industrial Film	37	PVA
840	Aluminum	47	Phenolic	36	Polystyrene
753	Zinc	46	Nylon	36	Acetal
526	Tin	45	Alkyd Enamel	33	EVA
458	Lead	43	Polyester	31	Polyethylene
700-1100	Stainless Steel	43	Epoxy Paint	29	Polypropylene
250-500	Glass Porcelain	43	Polyurethane Paint	28	Tedlar® Polyvinyl Fluoride Film
		42	ABS	18	PTFE
		42	Polycarbonate	*	Powder Coated Paints
		39	PVC Rigid		
		38	Noryl® Resin		
		38	Acrylic		

* Broad range

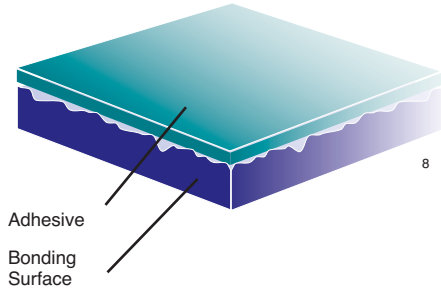
NOTE: These values are provided as a guide. Formulation modifications can substantially alter surface energies.



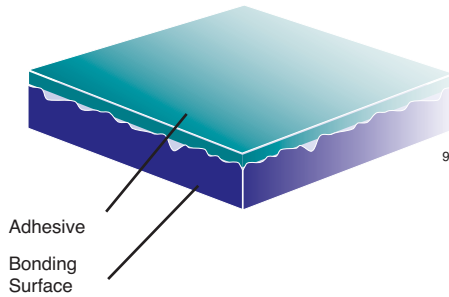
Adhesive Surface Contact

Applying firm pressure to the bond increases adhesive flow and contact for more secure bonding. Time and temperature will typically further increase contact and adhesion values.

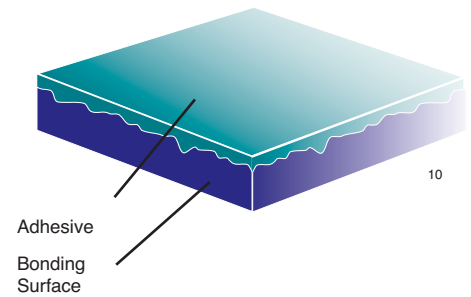
Initial Contact (Minimal Contact)



After Rubdown (More Contact)

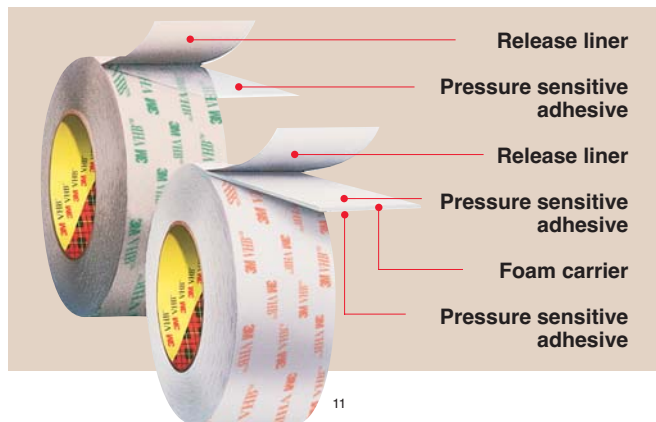


After Dwell Time (Excellent Contact)

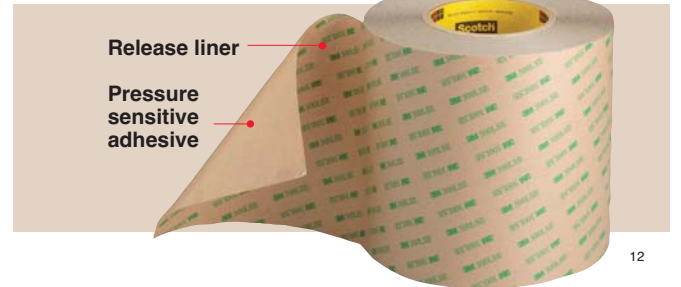


3M Product Constructions

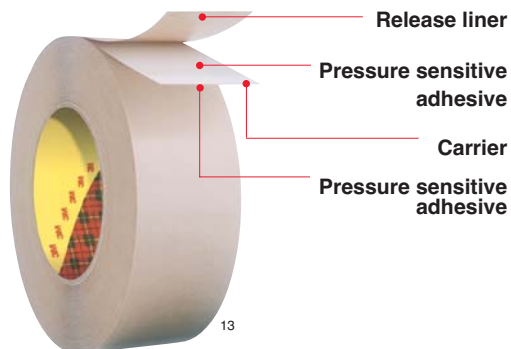
3M™ VHB™ and Double Coated Foam Tapes



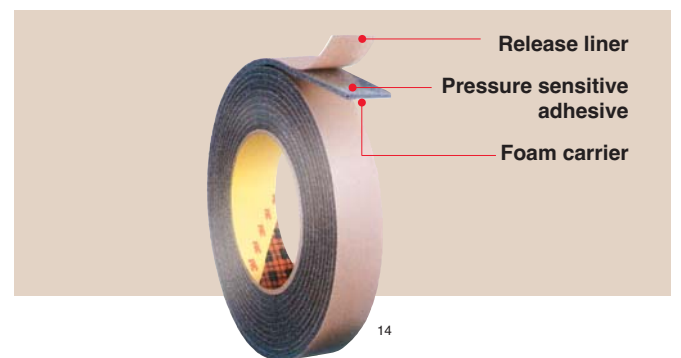
3M™ Adhesive Transfer Tapes



3M™ Double Coated Tapes



3M™ Single Coated Foam Tapes

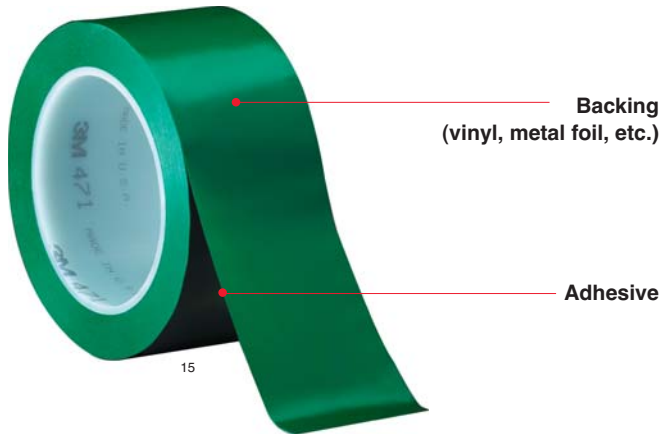


Constructions continued on next page.

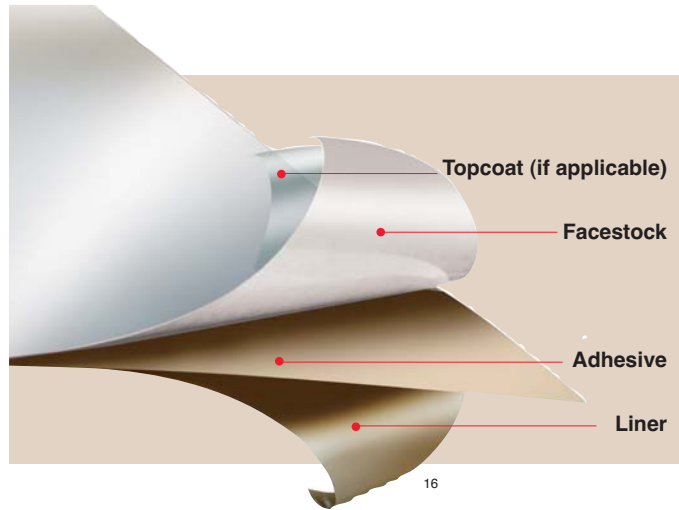


3M Product Constructions (continued)

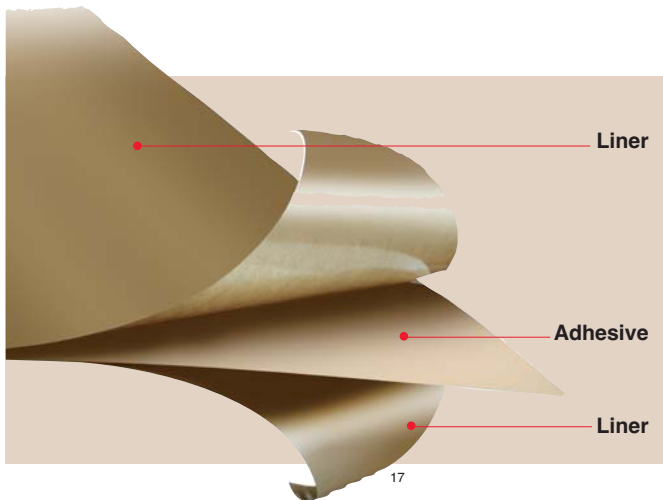
3M™ Single Coated Tapes



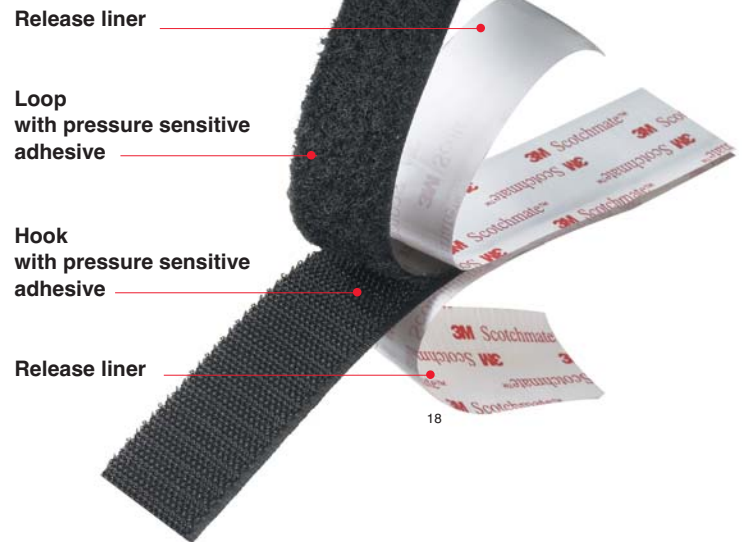
3M™ Performance Label Materials



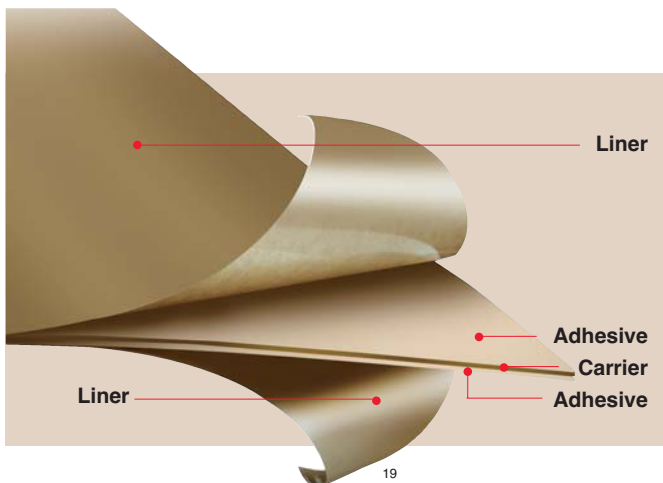
3M™ Double-lined Adhesive Transfer Tapes – Sheets



3M™ Scotchmate™ Reclosable Fasteners



3M™ Double Coated Spacers – Sheets



3M™ Dual Lock™ Reclosable Fasteners



3M™ Bonding Tapes



Enhanced appearance, improved performance, improved process...if you think these benefits can help you bring a better, more competitive product to market, you'll want to evaluate the many pressure sensitive adhesive bonding tapes from 3M.

Bonding tapes have pressure sensitive adhesive on two sides to bond mating surfaces with strength that ranges from permanent to repositionable. Substrates range from metal to paper. Each tape represents more than 50 years of 3M leadership in providing design and production engineers with innovative adhesive formulations.

Today, you can rely on 3M for a comprehensive and versatile line of bonding tapes. You'll find solutions for any one of thousands of material combinations.

The line includes all of the following:

- 3M™ Adhesive Transfer Tapes
- 3M™ Double Lined Adhesive Transfer Tapes
- 3M™ Double Coated Tapes
- 3M™ Differential Double Coated Tapes
- 3M™ Removable/Repositionable Tapes
- 3M™ Membrane Switch Spacers
- 3M™ Screen Printable Adhesives
- 3M™ VHB™ Tapes
- 3M™ Double Coated Foam Tapes
- 3M™ Structural Bonding Tapes
- 3M™ Bonding Films
- 3M™ Electrically and Thermally Conductive Tapes
- 3M™ Thermally Conductive Interface Pads



Knowing when to use 3M™ Bonding Tapes to improve your product and process

Based on your answers to the following questions, you can decide if it will be worth your time to evaluate specific 3M adhesives and tapes for your operation.

Q *Can 3M Bonding Tapes hold together the materials you want to join with the strength you need?*

Some materials are harder to bond than others. But with 3M Bonding Tape technologies, even many materials once defined as “hard-to-bond,” such as low surface energy plastics, can be bonded with strength greater than the materials bonded. The list of potential substrates includes glass, wood, steel, concrete, foam, polycarbonate, and just about any other material you can name.

Strength can be readily matched to the substrate and stress characteristics to which the bond will be subjected. Most tapes perform better when the primary stress is tensile or shear. In most industrial applications, however, a combination of stresses are involved that may include cleavage and peel.

Tensile is pull exerted equally over the entire joint. Pull direction is straight and away from the adhesive bond.

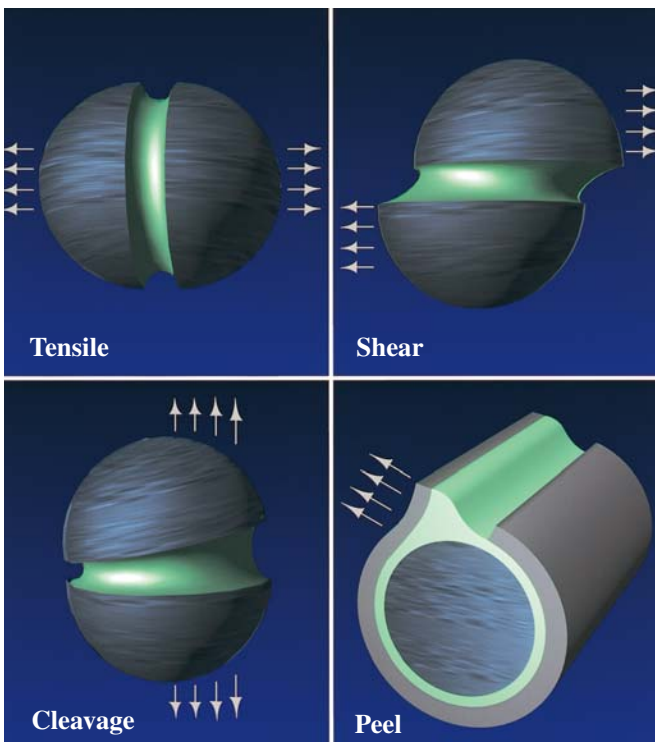
Shear is pull directed across the adhesive, forcing the substrates to slide over each other.

Cleavage is pull concentrated at one edge of the joint, exerting a prying force on the bond. The other edge of the joint is theoretically under zero stress.

Peel is concentrated along a thin line at the edge of the bond where one substrate is flexible. The line is the exact point where an adhesive would separate if the flexible surface were peeled away from its mating surface. Once peeling has begun, the stress line stays out in front of the advancing bond separation.

Q *Do you want to eliminate the stress concentration caused by spot welds, rivets, screws, or other mechanical fasteners and maintain surface integrity?*

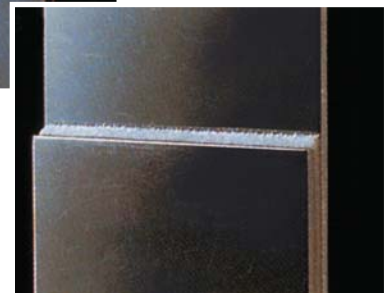
Bonding tapes distribute stress evenly over the entire bonded area. A rivet or screw hole in the substrate concentrates stress at the hole and can decrease physical properties of the substrate. With uniform stress distribution of adhesives and tapes, lighter, thinner materials can be used without concerns about distortion, splitting, or crazing at the mechanically fastened site. Elimination of holes in metal also reduces the chances for rust and corrosion.



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Q *Would invisible fastening improve your product's appearance?*

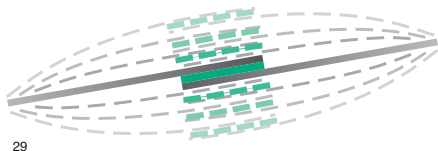
3M™ Bonding Tapes are generally hidden between the bonded substrates. Surfaces stay smooth and clean for a more attractive appearance and less surface refinishing.

Q *Do you want to attach dissimilar substrates?*

Laminates of dissimilar materials can often produce combinations superior in strength and performance to either substrate alone. The flexibility of many 3M Bonding Tapes compensates for differences in the coefficients of expansion between such materials as aluminum and wood.

Q *Will your part be subjected to vibration?*

The viscoelasticity of many 3M Bonding Tapes improves resistance to vibration fatigue by imparting flexibility to a joint or bonded area.



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Q *Is the design of your part right for adhesive tape bonding?*

Adhesive tapes perform better with some part configurations than with others. 3M Bonding Tapes meet the requirements of most parts that can be assembled with mechanical or fusion fastening. For cleaner, more efficient application, die-cut pressure sensitive adhesive tapes can be precisely placed on smaller, irregularly shaped bonding surfaces.

Q *Do you want to bond and simultaneously seal between the substrates?*

With many 3M Bonding Tapes, continuous contact between mating surfaces effectively bonds and seals against dirt, dust, water, and other environmental conditions. 3M Bonding Tapes also provide a film barrier to reduce or prevent bimetallic corrosion that often occurs in bonding two different types of metal.

Q *Will your finished assembly be exposed to harsh environmental conditions?*

Some 3M Bonding Tapes do not hold well when exposed to very low or very high temperatures, high humidity, chemicals, or even water. Other adhesives are specially formulated to resist harsh environments.

Q *Does your part need to be disassembled for maintenance or service?*

When assembled with most 3M Bonding Tapes, parts are generally difficult or virtually impossible to disassemble without damaging the part. As an exception, hot melt adhesives can be reheated and reused, but in most instances reuse would be messy and impractical. As already noted, repositionable tapes are available, but application is restricted to lighter duty attachment or closure.

3M reclosable fasteners consist of 3M™ Scotchmate™ Reclosable Fasteners (hook and loop construction) or 3M™ Dual Lock™ Reclosable Fasteners (self-mating). They include a variety of attachment options including pressure sensitive adhesives, ultrasonic bonding and other methods. These products allow parts to be separated for easy maintenance or service. See pages 96 through 100 for details.

Q *Do you want to cut costs, increase production and simplify your operation?*

With 3M Bonding Tapes, you can see cost reduction through reduced material requirements, weight reductions, and elimination of drilling, welding, screwing, finishing, and similar operations. In most cases, 3M Bonding Tapes require minimal training and little or no investment in equipment.



Adhesive Families

Adhesive families have been color coded to make cross referencing between charts easier.

100 High Temperature Acrylic

- Up to 450°F short-term heat resistance and excellent solvent resistance.
- High peel strength compared to other acrylic formulations.
- Exceptional shear strength even at elevated temperatures.
- Exhibits low outgassing characteristics.

100MP High Performance Acrylic

- Up to 500°F short-term heat resistance and outstanding solvent resistance.
- Higher peel strength than most other acrylic formulations.
- Exceptional shear strength even at elevated temperatures.

100HT Ultra High Temperature Acrylic

- Up to 550°F short-term heat resistance and outstanding solvent resistance.
- Higher peel strength than most other acrylic formulations.
- Exceptional shear strength even at elevated temperatures.

200MP High Performance Acrylic

- Up to 400°F short-term heat resistance and excellent solvent resistance.
- Outstanding adhesion to metal and high surface energy plastics.
- Excellent shear strength to resist slippage and edge lifting.
- Short term repositionability for placement accuracy.

220 Industrial Acrylic

- Up to 350°F short-term heat resistance and good chemical resistance.
- Good shear strength and chemical resistance for general purpose industrial applications.
- Good adhesion to most metal and high surface energy plastics.

290 Low Outgassing Acrylic

- Up to 450°F short-term heat resistance.
- Exceeds most OEM specifications for outgassing and long-term performance.
- High peel strength compared to other acrylic formulations.
- Exceptional shear strength even at elevated temperatures.

300 High Strength Acrylic

- Up to 250°F short-term heat resistance.
- High initial adhesion especially to low surface energy plastics.
- Quick flowing to speed lamination of textured plastics, foams, fabrics, and coated papers.

300FR Flame Retardant

- Meets various flame retardancy standards such as UL94 V-O/2, F.A.R. 25.853, and FMVSS 302.
- Similar adhesive properties to adhesive 300 family.
- Good adhesion to a wide variety of surfaces including LSE plastics, foams, and fabrics.

300LSE Low Surface Energy Acrylic

- Up to 300°F short-term heat resistance.
- Outstanding adhesion to low surface energy plastics, powder coated paints, and lightly oiled metals.
- Good chemical and humidity resistance.

300MP High Tack Acrylic

- Up to 250°F short-term heat resistance for automotive interior applications.
- Designed especially to bond most plastics and foams.
- Economical attachment of graphics.

340 High Tack Acrylic

- Up to 180°F short-term heat resistance.
- Excellent bonding to foam and other substrates.
- High tack; medium shear.

350 High Performance Acrylic

- Up to 450°F short-term heat resistance.
- Excellent solvent resistance and adhesion to LSE materials.

375 High Performance Double Coated

- Up to 450°F short-term heat resistance.
- Good adhesion to both high and low surface energy substrates.
- Excellent initial tack.

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



Adhesive Families

400 Acrylic Adhesive

- Up to 250°F short-term heat resistance.
- Good low temperature performance and peel strength on many surfaces.
- Excellent adhesion to uncoated papers.
- Clarity and UV resistance for window label applications.

420 Acrylic Adhesive

- Up to 300°F short-term heat resistance.
- High tack adhesive.

430 Acrylic Adhesive

- Up to 350°F short-term heat resistance.
- Lead for high temperature splicing.

563 Low Outgassing Permanent Bond Acrylic (high shear)

- Provides permanent bond strength to a wide variety of surfaces.
- Because the adhesive level neither builds nor degrades over time, it will remove cleanly from most HSE materials.

573 Permanent Low Outgassing Acrylic

- High shear strength even at 350°F temperature.
- High peel strength.
- Low outgassing, exceeds most OEM specifications for outgassing performance.

700 Series Synthetic Rubber

- Up to 200°F short-term heat resistance.
- Good adhesion to low surface energy substrates.
- For indoor and room temperature applications.

800 Series Natural Rubber

- Up to 200°F short-term heat resistance.
- Offers good adhesion to a variety of surfaces.
- For indoor and room temperature applications.

900/900R Miscellaneous Rubber Adhesive Group

- Excellent initial adhesion and high bond to a variety of foams.
- Utility rubber-based adhesive ideal for the foam fabricating industry.

1000 Series Repositionable Acrylic

- Good holding to many surfaces.
- Clean removal.

2000MP Optically Clear Acrylic

- Visual accuracy - light transmission > 99%, free of birefringence, refractive index of 1.47.
- High cohesive and peel strengths.
- High temperature, humidity, and UV light resistance.
- Long-term durability without yellowing, delaminating, or degrading.

Electronically Conductive

- Good initial tack.
- Non-corrosive adhesive.
- Built-in conductive fibers.
- Helps reinforce tape.
- Low electrical resistance with good conductivity.

Thermally Conductive

- High performance acrylic adhesive with highly conductive ceramic particles.
- For an extremely reliable thermal interface.
- Highly conformable.

Screen Printable Adhesive

- For selective placement of pressure sensitive adhesive using screen print technology.
- Either UV curable or water-based are available.



3M™ Bonding Tapes Selection Guide Based on Surface Energy

These charts are based on relative adhesion within each given surface energy category.

Metals		Surface Energy Dynes/cm	
Copper	1103		
Aluminum	840		
Zinc	753		
Tin	526		
Lead	543		

HSE Plastics		Surface Energy Dynes/cm	
Kapton®	50		
Phenolic	47		
Nylon	46		
Alkyd Enamel	45		
Polyester	43		
Epoxy Paint	43		
Polyurethane	43		
ABS	42		
Polycarbonate	42		
PVC	39		
Noryl	38		
Acrylic	38		

LSE Plastics		Surface Energy Dynes/cm	
PVA	37		
Polystyrene	36		
Acetal	36		
EVA	33		
Polyethylene	31		
Polypropylene	29		
Tedlar®	28		
Teflon®	18		
Powder Coatings	**		

**Broad range of surface energy.

Adhesive	1	2	3	4	5	6	7	8	9	10
100	1	2	3	4	5	6	7	8	9	10
100MP	1	2	3	4	5	6	7	8	9	10
100HT	1	2	3	4	5	6	7	8	9	10
200MP	1	2	3	4	5	6	7	8	9	10
220	1	2	3	4	5	6	7	8	9	10
290	1	2	3	4	5	6	7	8	9	10
300	1	2	3	4	5	6	7	8	9	10
300FR	1	2	3	4	5	6	7	8	9	10
300LSE	1	2	3	4	5	6	7	8	9	10
300MP	1	2	3	4	5	6	7	8	9	10
340	1	2	3	4	5	6	7	8	9	10
350	1	2	3	4	5	6	7	8	9	10
375	1	2	3	4	5	6	7	8	9	10
400	1	2	3	4	5	6	7	8	9	10
420	1	2	3	4	5	6	7	8	9	10
430	1	2	3	4	5	6	7	8	9	10
563	1	2	3	4	5	6	7	8	9	10
573	1	2	3	4	5	6	7	8	9	10
700	1	2	3	4	5	6	7	8	9	10
800 Series	1	2	3	4	5	6	7	8	9	10
900/900R	1	2	3	4	5	6	7	8	9	10
1000 Series	1	2	3	4	5	6	7	8	9	10

Adhesive	1	2	3	4	5	6	7	8	9	10
100	1	2	3	4	5	6	7	8	9	10
100MP	1	2	3	4	5	6	7	8	9	10
100HT	1	2	3	4	5	6	7	8	9	10
200MP	1	2	3	4	5	6	7	8	9	10
220	1	2	3	4	5	6	7	8	9	10
290	1	2	3	4	5	6	7	8	9	10
300	1	2	3	4	5	6	7	8	9	10
300FR	1	2	3	4	5	6	7	8	9	10
300LSE	1	2	3	4	5	6	7	8	9	10
300MP	1	2	3	4	5	6	7	8	9	10
340	1	2	3	4	5	6	7	8	9	10
350	1	2	3	4	5	6	7	8	9	10
375	1	2	3	4	5	6	7	8	9	10
400	1	2	3	4	5	6	7	8	9	10
420	1	2	3	4	5	6	7	8	9	10
430	1	2	3	4	5	6	7	8	9	10
563	1	2	3	4	5	6	7	8	9	10
573	1	2	3	4	5	6	7	8	9	10
700	1	2	3	4	5	6	7	8	9	10
800 Series	1	2	3	4	5	6	7	8	9	10
900/900R	1	2	3	4	5	6	7	8	9	10
1000 Series	1	2	3	4	5	6	7	8	9	10

Adhesive	1	2	3	4	5	6	7	8	9	10
100	1	2	3	4	5	6	7	8	9	10
100MP	1	2	3	4	5	6	7	8	9	10
100HT	1	2	3	4	5	6	7	8	9	10
200MP	1	2	3	4	5	6	7	8	9	10
220	1	2	3	4	5	6	7	8	9	10
290	1	2	3	4	5	6	7	8	9	10
300	1	2	3	4	5	6	7	8	9	10
300FR	1	2	3	4	5	6	7	8	9	10
300LSE	1	2	3	4	5	6	7	8	9	10
300MP	1	2	3	4	5	6	7	8	9	10
340	1	2	3	4	5	6	7	8	9	10
350	1	2	3	4	5	6	7	8	9	10
375	1	2	3	4	5	6	7	8	9	10
400	1	2	3	4	5	6	7	8	9	10
420	1	2	3	4	5	6	7	8	9	10
430	1	2	3	4	5	6	7	8	9	10
563	1	2	3	4	5	6	7	8	9	10
573	1	2	3	4	5	6	7	8	9	10
700	1	2	3	4	5	6	7	8	9	10
800 Series	1	2	3	4	5	6	7	8	9	10
900/900R	1	2	3	4	5	6	7	8	9	10
1000 Series	1	2	3	4	5	6	7	8	9	10

1=Lowest Performance 10=Highest Performance

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



3M™ Bonding Tapes Selection Guide Based on Surface Combinations

This matrix gives you a few of our most commonly used tapes for various surface combinations. Products shown represent only a small part of the total line.

		Surface A													
		Steel Aluminum Glass Ceramics		ABS, Acrylic, Enamel & Epoxy Paints, Kapton® Industrial Film, Noryl Resin, Nylon, Lexan® Polycarbonate, Polyester, Rigid Vinyl		Polystyrene Polypropylene Polyethylene Powder Paints		Plasticized Vinyl		Paper		Cloth		Rubber	
Surface B		Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick	Thin	Thick
Rubber	Transfer	950* 9472LE		950* 9472LE		950* 9472LE		950*		950*		950*		950* 9472LE	
	Double coated	444 9495LE		444 9495LE		444 9495LE				444		444		444	
Cloth	Transfer	950 9485		950 9485PC		950 9485PC		950		465 950 9485PC		465 950 9485PC			
	Double coated	444 9690		444 9690		444 9690		9443NP		444 9690		444 9690			
Paper	Transfer	465 950		465 950		950		950 9465PC		465 950					
	Double coated	410M 415		410M 415		444				410M 415					
Plasticized Vinyl	Transfer	950 9465PC		950 9465PC		950		950 9465PC							
	Double coated		4941		4941				4941						
Polystyrene Polypropylene Polyethylene Powder Paints	Transfer	950 9485PC 9472LE	4462	950 9485PC 9472LE	4462	950 9472LE	4462								
	Double coated	444 9589 9495LE	4952 5952 (powder paint)	444 9589 9495LE	4952 5952 (powder paint)	444 9443NP 9495LE	4952 5952 (powder paint)								
ABS, Acrylic, Enamel & Epoxy Paints, Kapton®Industrial Film, Noryl® Resin, Nylon, Lexan® Polycarbonate, Polyester, Rigid Vinyl	Transfer	950 F9469PC 9485PC 468MP	4046/4016 4462 4492	950 F9469PC 9485PC 468MP	4046/4016 4462 4492										
	Double coated	444 9500PC 9495MP	4941 5952	444 9500PC 9495MP	4941 5952										
Steel Aluminum Glass Ceramics	Transfer	468MP 9085 9469 9485PC	4046/4016 4462 4492												
	Double coated	9495MP 9500PC	4941 4950												

*For temporary holding only.

NOTE: The technical information and data provided here should be considered representative or typical only and should not be used for specification purposes. User should evaluate the 3M product to determine whether it is fit for a particular purpose and suitable for user's method of application.



Adhesive Properties

Adhesive Family	Adhesive Properties*				Adhesion To:			Environmental Performance Resistance To:				Temperature °F			Products
	Peel		Shear		Metal	Plastics		Chemical	Ultra Violet	Plasti-cizers	Humidity	Minimum Application	Service*		
	Initial	Ultimate	Room Temp.	150°F		HSE	LSE						Low	High	
Acrylic															
#100															
High Temperature	3	9	10	10	9	8	1	9	10	5	10	50	-40	450	941, 965, 966, 4004, 4008, 4026, 4032, 4052, 4056, 4658F, 4921, 9461P, 9462P
#100MP															
High Performance	4	10	10	10	10	7	1	10	10	5	10	50	-40	500	F9460PC, F9473PC, F9469PC, 9437
#100HT															
Ultra High Temperature	4	10	10	10	10	7	1	10	10	5	10	50	-40	550	9082, 9085
#200MP															
High Performance	4	10	10	10	10	9	1	9	10	5	10	50	-40	400	467MP, 467MPF, 467MPR, 468MP, 468MPF, 7945MP, 7952MP, 7953MP, 7953SL, 7955MP, 7956MP, 7956MWS, 7956WDL, 7957MP, 7959MP, 7961MP, 7962MP, 7964, 7965MP, 7966MWS, 7966WDL, 7991MPW, 7992MP, 7992MPW, 7993MP, 7995MP, 7997MP, 9045MP, 9056MP, 9057MP, 9059MP, 9061MP, 9172MP, 9172PT, 9185MP, 9492MP, 9492MPR, 9495B, 9495FL, 9495MP, 9495MPF, 9667MP, 9668MP, 9668MPL
#220															
Industrial	4	8	10	9	8	7	1	8	10	4	8	50	-40	350	9502, 9502HL, 9505, 9505HL, 9552, 9553, 9553HL, 9555, 9557, 9559, 9561, 9563
#290															
Low Outgassing	3	8	10	10	9	7	1	9	10	5	10	50	-40	450	501FL, 502FL
#300															
High Strength Acrylic	6	7	4	1	7	9	9	6	7	3	8	50	-40	250	444, 444PC, 927, 950, 950EK, 992U, 9009, 9019, 9039, 9428, 9458, 9459S, 9459W, 9466B, 9471, 9471PC, 9472, 9653, 9671, 9672, 9673
#300FR															
Flame Retardant	6	7	4	1	8	9	9	6	7	3	8	50	-40	250	9372W, 9372DKW, 9375W, 9375DKW
#300LSE															
Low Surface Energy	7	9	8	8	9	10	10	7	7	4	9	50	-40	300	8132LE, 8153LE, 9453FL, 9453LE, 9471FL, 9471LE, 9472LE, 9472FL, 9495LE, 9653LE, 9671LE, 9672LE
#300MP															
High Tack	6	7	8	8	7	7	8	7	7	3	9	50	-40	250	964, 6032PC, 6032PL, 6035PC, 6035PL, 6038PC, 6038PL, 7951, 9609, 9687, 9690, 9690B, 9695, 9770, 9774HL, 9784, 9786, 9786NP, 9832, 9832HL
#340															
High Tack	6	7	6	5	6	6	5	8	7	4	9	50	-40	180	9456, 9824, 9828, 9828HL, 9828PC

Values: 1 – Lowest Performance 10 – Highest Performance

The rankings are a general guide. Adhesives should be tested with actual components to ensure acceptable performance.

* Reflects lowest service temperature that bond holds and highest temperature for short periods (minutes, hours)

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



Adhesive Properties

Adhesive Family	Adhesive Properties*				Adhesion To:			Environmental Performance Resistance To:				Temperature °F			Products
	Peel		Shear		Metal	Plastics		Chemical	Ultra Violet	Plasti-cizers	Humidity	Minimum Application	Service*		
	Initial	Ultimate	Room Temp.	150°F		HSE	LSE						Low	High	
Acrylic continued															
#350															
High Performance	7	9	8	8	9	10	10	8	7	4	9	50	-40	450	922XL, 9442, 9445, 9482PC, 9485EK, 9485PC, 9500PC, 9675, 9731
#375															
High Performance Double coated	6	8	8	8	8	8	6	7	7	5	8	50	-10	300* ⁽¹⁾	9086, 9087, 9088, 9088FL
#400															
Acrylic	4	5	5	4	5	5	5	5	10	4	8	50	-60	250	415, 463, 465, 465XL, 666, 920XL, 9420, 9457, 9464, 9498, 9576, 9576B, 9576R, 9576Y, 9578, 9665
#420															
Acrylic	5	6	10	10	7	7	8	6	10	2	9	32	-40	300	F9752PC, F9755PC, 9783, 9795, 9795B, 9795BF
#430															
Acrylic	3	4	10	10	6	6	5	5	10	4	10	50	-40	350	4408, 4416, 4432, 4492, 4496, 9497, 9499
#563															
Low Outgassing Permanent Bond Acrylic	6	6	6	5	6	6	3	7	7	3	8	50	-40	300	55334
#573															
Permanent Low Outgassing Acrylic	3	8	9	9	8	7	1	9	9	4	9	50	-40	350	55106, 55334
Rubber															
#700 Series															
Synthetic Rubber	7	9	10	2	8	9	9	2	4	1	9	50	-40	200	4085, 4462, 4466, 4492, 4496, 9443NP, 9579, 9589
#800 Series															
Natural Rubber	9	10	6	2	8	8	8	1	1	1	1	50	-40	180	401M, 410M, 442F, 442KW, 456CR
#900R															
Rubber	10	10	5	4	10	9	9	4	4	3	1	50	-40	200	9851
Other															
#1000 Series															
Repositionable Acrylic	2	3	3	3	3	1	1	2	7	3	4	50	-20	250	665, 666, 9425, 9449, 9449S, 9870, 9871

¹ Service temperature dependent on carrier. See technical data page for further information.

* Reflects lowest service temperature that bond holds and highest temperature for short periods (minutes, hours)

Values: 1 – Lowest Performance 10 – Highest Performance N/A – Not Available

The rankings are a general guide. Adhesives should be tested with actual components to ensure acceptable performance.

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Liner Reference Chart

3M offers paper and film release liners in a number of different constructions and weights to meet various process requirements.

- Paper** liners include **polycoated kraft (PCK)** for moisture stability to resist wrinkling and curling; and **densified kraft (DK)** to reduce the edge burr on metal plates and for rotary processing. **Extended DK liners (XL)** are also available on selected tapes. With the liner wider than the adhesive, you can more easily grip the liner edge for removal.
- Film** liners add strength in high speed processing and dispensing, and are available for clean room processing. They also offer high clarity for graphic inspection.

Paper Liners

43# Densified Kraft (DK) – 2.5 mils

- Silicone treated on one side for use as a second liner to protect adhesive during selective die-cutting.
- Printable.

55# Densified Kraft (DK) – 3.2 mils

- Caliper-controlled hard liner for consistent base in rotary printing and die-cutting of labels.

58# Polycoated Kraft (PCK) – 4.2 mils

- 3M standard for performance.
- Moisture stability and economical edge burr during hard tool die-cutting.

60# Densified Kraft (DK) – 3.5 mils

- Hard dense liner reduces edge burr in hand tool processing of metal plates.

62# Densified Kraft (DK) – 3.7 mils

- Heavier version of 60#.

78# Extensible Polycoated Kraft (EK) – 6.0 mils

- Extra tough liner for tear resistance.
- Conformable for EMI/RFI shielding applications.

83# Polycoated Kraft (PCK) – 6.2 mils

- Excellent moisture stability for lay-flat processing.
- Thicker caliper for kiss-cutting and steel rule die-cutting.

94# Polycoated Kraft (PCK) – 7.0 mils

- Excellent liner for lay-flat processing.

Film Liners

Clear Polyester (PET) – 2.0, 3.0, 4.0 mils

- High strength reduces breakage during die-cutting and dispensing.

Clear High Density Polyethylene (HDPE) – 3.0 mils

- Silicone treated for easy release.
- Clarity for see-through applications.

Liner Selection Chart

Liner Type	High Tensile Strength	Humidity Resistance	Rotary Processing	Kiss Cutting	Steel Rule
Film	●		●		●
Densified Kraft			●		
Polycoated Kraft		●		●	●
Extensible Kraft	●	●		●	●



3M™ Adhesive Transfer Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam		Low °F	High °F
100 High Temperature Acrylic	941	Graphic attachment for low odor appliance applications.	2	58# PCK	4.2	48" x 180 yd	UL	9	8	1	2	9	-40	450
	965	Fuel line labels, excellent chemical resistance. Aerospace.	2	55# DK	3.2	48" x 180 yd								
	966	Meets NASA low volatility specs. Flex circuit attachment. High temp.	2	62# DK	3.5	48" x 180 yd	UL M ^H							
	9461P	Thinner version of laminating adhesive 9462P.	1	55# DK	3.2	48" x 360 yd								
	9462P	Laminating adhesive 966 on a caliper-controlled liner for rotary die-cutting.	2	55# DK	3.2	48" x 360 yd	UL							
100MP* High Performance Acrylic	F9460PC	High performance industrial joining and metal fabrication.	2	58# PCK	4.2	60" x 180 yd	UL	10	7	1	2	10	-40	500
	F9469PC	High performance industrial joining and metal fabrication.	5	58# PCK	4.2	60" x 180 yd	UL							
	F9473PC	High performance industrial joining and metal fabrication.	10	58# PCK	4.2	60" x 180 yd	UL							
100HT Ultra High Temperature Acrylic	9082	Excellent heat resistance in high temp environments. For applications that require both higher processing and operating temperatures.	2	White DK Liner	3.2	48" x 180 yd		10	7	1	2	10	-40	550
	9085	Thicker version of 9082	5	White DK Liner	3.2	48" x 180 yd								
200MP High Performance Acrylic	467MP	Graphic attachment and general industrial joining. Industry standard.	2	58# PCK	4.2	48" x 180 yd	UL M ^H	10	9	1	3	9	-40	400
	467MPF	Polyester liner for rotary processing of graphic and die cut parts.	2	PET	2.0	54" x 180 yd	UL							
	468MP	Industry standard for graphic attachment and die cut parts.	5	58# PCK	4.2	48" x 180 yd	UL M ^H							
	468MPF	Thicker version of 467MPF.	5	PET	2.0	54" x 180 yd	UL							
	9667MP	Same as 467MP on heavy, lay-flat liner for kiss-cutting. 48" width master also available.	2	83# PCK	6.2	54" x 180 yd	UL							
	9668MP	Same as 468MP on heavy, lay-flat liner. 48" width master also available.	5	83# PCK	6.2	54" x 180 yd	UL M ^H							
	9668MPL	Better lay-flat properties.	5	94# PCK	7.0	60" x 180 yd								

1 – more information on pages 10-11

2 – more information on page 16

* Products in this platform are 3M™ VHB™ Tapes offering our highest strength.

M^H meets Mil-P-19834B Type I

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3M™ Adhesive Transfer Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Low °F	Range High °F
				Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam			
220 Industrial Acrylic	9502	Economical attachment of graphics and industrial joining.	2	58# PCK	4.2	48" x 180 yd	UL	8	7	1	2	8	-40	350
	9505	Thicker version of 9502 for textured surfaces.	5	58#PCK	4.2	48" x 180 yd	UL							
290 Low Outgassing Acrylic	501FL	Ultra-clean adhesive for low outgassing applications.	1	PET	2.0	54" x 180 yd		9	7	1	2	9	-40	450
	502FL	Ultra-clean adhesive for low outgassing applications.	2	PET	2.0	54" x 180 yd								
300 High Strength Acrylic	927	Attach gaskets and a variety of industrial foam materials.	2	60# DK	3.5	48" x 180 yd		7	9	9	9	6	-40	250
	950	Thicker version of 927.	5	60# DK	3.5	48" x 180 yd	UL							
	950EK	Thicker version of 927 with extensible Kraft liner.	5	78# EK	6.0	48" x 180 yd								
	992U	For performance-engineered labels. UV indicator in adhesive.	2	55# DK	3.2	48" x 180 yd	UL							
	9458	Thin, high tack adhesive for rotary processing HSE and LSE parts.	1	55# DK	3.2	54" x 360 yd	UL							
	9459W	White version of laminating adhesive 9459S	1.5	55# DK	3.2	48" x 360 yd	UL							
	9471	For smooth LSE plastics.	2	60# DK	3.5	48" x 180 yd	UL M ^H							
	9471PC	Same as 9471 on moisture-stable liner.	2	61# PCK	4.2	48" x 180 yd								
	9472	5.0 mil version of 9471; for textured surfaces.	5	60# DK	3.5	48" x 180 yd	UL M ^H							
	9653	A 3.5 mil version of 9471 on a heavy, lay-flat liner for kiss-cutting.	3.5	83# PCK	6.2	48" x 180 yd	UL							
	9671	Heavier lined version of 9471 for easy handling, lay-flat properties.	2	83# PCK	6.2	48" x 180 yd	UL M ^H							
	9672	Heavier lined version of 9472 for easy handling, lay-flat properties.	5	83# PCK	6.2	48" x 180 yd	UL							
	9673	Same as 9671 with unprinted liner.	2	83# PCK	6.2	48" x 180 yd	UL M ^H							
300FR Flame Retardant	9372W	Flame Retardant Transfer Tape with moisture stable liner.	2	83# PCK	6.2	60" x 180 yd	UL	8	9	9	9	6	-40	250
	9372DKW	Flame Retardant Transfer Tape with rotary diecuttable liner.	2	55# DK	3.2	60" x 180 yd	UL							
	9375W	Flame Retardant Transfer Tape with moisture stable liner.	5	83# PCK	6.2	60" x 180 yd	UL							

1 – more information on pages 10-11
 2 – more information on page 16

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3M™ Adhesive Transfer Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam		Low °F	High °F
300LSE Low Surface Energy Acrylic	9453FL	Film lined version of 9453LE for rotary processing.	3.5	PET	2.0	54" x 180 yd	UL	9	10	10	1	7	-40	300
	9453LE	A 3.5 mil version of 9471LE for application to rough surfaces. 48" master width available.	3.5	58# PCK	4.2	54" x 180 yd	UL							
	9471FL	Film lined version of 9471LE for rotary processing.	2	PET	2.0	54" x 180 yd	UL							
	9471LE	Bonds graphics to powder coatings, LSE plastics and oily materials.	2	58# PCK	4.2	54" x 180 yd	UL							
	9472FL	A 5 mil version of 9471LE with film liner for textured surfaces.	5	PET	2.0	54" x 180 yd	UL							
	9472LE	Thicker adhesive for textured LSE plastics and powder coatings.	5	58# PCK	4.2	54" x 180 yd	UL							
	9653LE	Heavy lined 9453LE for easy handling and lay-flat properties.	3.5	83# PCK	6.2	54" x 180 yd	UL							
	9671LE	Heavy lined 9471LE for easy handling and lay-flat properties.	2	83# PCK	6.2	54" x 180 yd	UL							
	9672LE	Heavy lined 9472LE for easy handling and lay-flat properties.	5	83# PCK	6.2	54" x 180 yd	UL							
300MP High Tack Acrylic	6035PC	Resists fogging for automotive interior fabric joining applications.	5	58# PCK	4.2	60" x 180 yd		7	7	8	8	7	-40	250
	6035PL	Heavy lined version of 6035PC for easy handling, lay-flat properties.	5	83# PCK	6.2	60" x 180 yd								
	6038PC	Low fogging. Automotive fabric and carpet attachment.	8	58# PCK	4.2	60" x 180 yd								
	6038PL	Low fogging. For rough embossed surfaces with heavy liner for steel rule die-cutting.	8	83# PCK	6.2	60" x 180 yd								
	9772WL	Provides excellent bond to various fabricated foams, fabrics and substrates.	2	96# PCK	7.0	60" x 180 yd								
	9773WL		3											
	9774WL		4											
	9775WL		5											

1 – more information on pages 10-11

2 – more information on page 16

M^H meets Mil-P-19834B Type I

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3M™ Adhesive Transfer Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam		Low °F	High °F
350 High Performance Acrylic	922XL	Extended liner for easy removal and dispensing.	2	60# DK	3.5	1" x 600 yd		9	10	10	9	8	-40	450
	9442	Excellent temperature and solvent resistance; high bond to low surface energy substrates.	2	55# DK	3.2	48" x 180 yd	UL							
	9445	Thicker version of 9442.	5	55# DK	3.2	48" x 180 yd	UL							
	9482PC	High tack and shear strength; excellent adhesion to plastics and foams.	2	58# PCK	4.2	48" x 180 yd	UL							
	9485EK	Thicker version of 9482PC with an extensible Kraft liner.	5	78# EK	6.0	48" x 180 yd								
	9485PC	A 5 mil version of 9482PC.	5	58# PCK	4.2	48" x 180 yd	UL							
	9675	Heavy lined version of 9485PC for easy handling, lay-flat properties.	5	83# PCK	6.2	48" x 180 yd								
400 Acrylic Adhesive	463	High tack and excellent adhesion to most paper stocks. For automatic dispensing.	2	60# DK	3.5	48" x 180 yd		5	5	5	4	5	-60	250
	465	Same as 463, but with easy liner release for manual or hand application.	2	60# DK	3.5	48" x 180 yd								
	465XL	Extended liner for easy removal and dispensing.	2	60# DK	3.5	1" x 600 yd								
	920XL	Extended liner for easy removal and dispensing.	1	40# DK	2.5	1" x 1000 yd								
	9457	Adhesive with long term stability, excellent outdoor performance and UV resistance. Adhesive 400 is best if necessary to apply at cooler temperatures.	1	55# DK	3.2	54" x 360 yd	UL							
	9464	Pink tinted adhesive.	2	60# DK	3.5	48" x 180 yd								
	9498	Industrial grade adhesive transfer tape.	2	60# DK	3.5	48" x 360 yd								
	9665	Thicker version of 9457.	2	58# PCK	4.2	48" x 180 yd								
420 Acrylic Adhesive	F9752PC	High tack; can be applied in temperatures as low as 32°F.	2	58# PCK	4.2	54" x 360 yd		7	7	8	4	6	-40	300
	F9755PC	Thicker version of F9752PC for textured surfaces.	5	58# PCK	4.2	54" x 360 yd								
430 Acrylic Adhesive	9497	Pink tinted high temperature splicing tape.	2	60# DK	3.5	48" x 360 yd		6	6	5	4	5	-40	350
	9499	Transparent version of 9497.	2	60# DK	3.5	48" x 360 yd								
Specialty Acrylic	F9465PC	Vinyl plasticizer resistant adhesive.	5	58# PCK	4.2	54" x 360 yd		10	10	7	5	5	-40	200

1 – more information on pages 10-11

2 – more information on page 16

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3M™ Double Lined Adhesive Transfer Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam		Low °F	High °F
100MP* High Performance Acrylic	9437	Excellent rotary die-cutting.	2	58#PCK/PET	4.2/1.4	48" x 180 yd		10	7	1	2	10	-40	500
200MP High Performance Acrylic	7952MP	Double-lined laminating adhesive 467MP.	2	58/58# PCK	4.2/4.2	48" x 360 yd 24" x 36"	UL	10	9	1	3	9	-40	400
	7955MP	Double-lined laminating adhesive 468MP. For selective die-cutting.	5	58/58# PCK	4.2/4.2	48" x 360 yd 24" x 36"	UL							
	7962MP	Laminating adhesive 7952MP on a lay-flat liner for kiss-cutting and selective die-cutting.	2	83/58# PCK	6.2/4.2	48" x 360 yd 24" x 36"	UL							
	7965MP	Laminating adhesive 7955MP on a lay-flat liner for kiss-cutting and selective die-cutting.	5	83/58# PCK	6.2/4.2	48" x 360 yd 24" x 36"	UL							
	9172MP	Laminating adhesive 467MP with transparent liner for graphic inspection. Strong liner for one piece removal.	2	58# PCK/HDPE	4.2/3.0	48" x 180 yd	UL							
	9185MP	5 mil version of laminating adhesive 9172MP.	5	58# PCK/HDPE	4.2/3.0	48" x 180 yd	UL							
300 High Strength Acrylic	9428	Double-lined version laminating adhesive 9458. Printable liner for application instructions.	1	55# DK/ 43# DK	3.2/ 2.5	54" x 360 yd		7	9	9	9	6	-40	250
300/400 Acrylic	9466B	Piggy-back adhesive for producing label sets. For photographic bar code labels.	2	White PP/ 60# DK	3.5	48" x 180 yd		7	9	9	9	6	-40	250
			1		3.7		5	5	5	5	5	-60	250	
300LSE Low Surface Energy Acrylic	8132LE	Double-lined laminating adhesive 9471LE. For selective die-cutting. Application to smooth surfaces.	2	58/83# PCK	4.2/6.2	48" x 360 yd 24" x 36"	UL	9	10	10	1	7	-40	300
	8153LE	Double-lined laminating adhesive 9453LE. For selective die-cutting. Application to rough surfaces.	3.5	58/83# PCK	4.2/6.2	48" x 360 yd 24" x 36"	UL							

* Products in this platform are 3M™ VHB™ Tapes offering our highest strength.

1 – more information on pages 10-11

2 – more information on page 16

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3M™ Double Lined Adhesive Transfer Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range	
				Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam		Low °F	High °F
300MP High Tack Acrylic	7951	Double-lined laminating adhesive 9770. For selective die-cutting. Excellent adhesion to LSE plastics.	2	58/58# PCK	4.2/4.2	48" x 360 yd 24" x 36"	UL	7	7	8	8	7	-40	250
	9784	For see-through graphic inspection. A film lined version of laminating adhesive 9774.	4	58# PCK/HDPE	4.2/3.0	48" x 180 yd								
2000MP Optically Clear Acrylic	8211	General purpose, high adhesion optically clear adhesive.	1	PET/PET	2.0/ 2.0	60" x 180 yd		9	9	n/a	n/a	9	-40	350
	8212		2	PET/PET		60" x 180 yd								
	8213*		3	PET/PET		60" x 180 yd								
	8214*		4	PET/PET		60" x 180 yd								
	8215*		5	PET/PET		60" x 180 yd								
	8271	"Bare" ITO compatible optically clear adhesive.	1	PET/PET	2.0/ 2.0	60" x 180 yd		8	8	n/a	n/a	9	-40	350
	8272		2	PET/PET		60" x 180 yd								
	8273*		3	PET/PET		60" x 180 yd								
	8274*		4	PET/PET		60" x 180 yd								
	8275*		5	PET/PET		60" x 180 yd								
	9483	Optically clear adhesive.	5	PET/PP	3.0/3.0	48" x 180 yd		9	9	n/a	n/a	9	-40	350

NOTE: All optically clear adhesives can be manufactured in a single coated or double coated tape format upon special request.

* Made to order. Longer lead time required.

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3M™ Double Coated Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Tape Cal. Mils	Carrier Type	Liner ²		Master Size	Specs	Adhesion				Chem. Temp Range		
					Type	Caliper Mils			Metal Plastic	HSE Plastic	LSE Plastic	Foam Resist.	Low °F	High °F	
200MP High Performance Acrylic	9492MP	2.5 mil version of 9495MP.	2.5	PET	58# PCK	4.2	48" x 180 yd		10	9	1	2	9	-40	400
	9495B	Black version of 9495MP.	5.7	Black	58# PCK PET	4.2	54" x 180 yd								
	9495FL	Same as 9495MP with two liners; 3.0 mil opaque white HDPE.	5.7	PET	HDPE/ 58# PCK	3.0/ 4.2	48" x 180 yd								
	9495MP	Double-coated version of 468MP. Offers improved handling and ease of die-cutting.	5.7	PET	58# PCK	4.2	54" x 180 yd	UL							
	9495MPF	9495MP with a 2 mil polyester film liner.	5.7	PET	PET	2.0	54" x 180 yd								
300 High Strength Acrylic	444	Foam lamination. Gasket attachment.	3.9	PET	55# DK	3.2	48" x 108 yd		7	9	9	9	6	-40	250
	444PC	Foam lamination. Gasket attachment.	3.9	PET	58# PCK	4.2	48" x 108 yd								
	9009	Thin double coat for applications where thickness is critical.	2.1	PET	55# DK	3.2	54" x 180 yd								
	9019	Ultra-thin double coat for applications where thickness is critical.	1.1	PET	55# DK	3.2	54" x 180 yd								
	9039	Thin double coat where application thickness is critical.	3.5	PET	55# DK	3.2	54" x 180 yd								
300LSE Low Surface Energy Acrylic	9495LE	Double-coated version of 9472LE. Improved handling and ease of die-cutting.	6.7	PET	58# PCK	4.2	54" x 180 yd	UL	9	10	10	1	7	-40	300
300MP/300LSE Differential Adhesive	9490LE	Adhesive 300MP for foam laminating. Adhesive 300LSE bonds to powder coated metals, oily metals and LSE plastics.	6.7	PET	58# PCK	4.2	54" x 180 yd		7	7	8	8	7	-40	250
									9	10	10	1	7	-40	300
300MP High Tack Acrylic	9609	Thick double-coat for cell phone lens attachment. Provided on 6" core only.	9.0	PET	83# PCK	6.2	48" x 180 yd		7	7	8	9	7	-40	250
	9687	Thick double-coat for bonding to foam. Provided on 6" core only.	12.0	Clear PET	Clear PET	2.0	54" x 180 yd								
	9690	Double-coated version of 9695 for foam lamination and graphic attachment.	5.6	PET	83# PCK	6.2	54" x 180 yd								
	9690B	Black version of 9690. Ideal for LED lens attachment for pagers and cellular phones.	5.6	Black PET	83# PCK	6.2	54" x 180 yd								
	9786	Thin nonwoven carrier for dimensional stability and improved handling. Temperature resistance up to 300°F.	5.5	Non-woven	58# PCK printed	4.2	48" x 180 yd								
	9786NP	Same as 9786 except an unprinted liner.	5.5	Non-woven	58# PCK unprinted	4.2	54" x 180 yd								
	9832	General purpose tape with improved temperature resistance.	4.8	PET	58# PCK	4.2	54" x 250 yd								
	9832HL	Same as 9832 except with a heavier liner.	4.8	PET	83# PCK	6.2	54" x 250 yd								

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3M™ Double Coated Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Tape Cal. Mils	Carrier Type	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp Range	
					Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic	Foam		Low °F	High °F
340 High Tack Acrylic	9456	High tack acrylic adhesive with good adhesion to many plastics.	5.0	Tissue	55# DK	3.2	54" x 180 yd		6	6	5	4	8	-40	180
	9824	Foam lamination. Gasket attachment.	3.1	PET	55# DK	3.2	54" x 250 yd								
	9828	Foam lamination. Gasket attachment.	4.0	PET	55# DK	3.2	54" x 250 yd								
	9828HL	Good adhesion to many plastics and foams.	4.0	PET	132# kraft	15	54" x 250 yd								
	9828PC	High tack acrylic adhesive with good adhesion to many foams.	4.0	PET	74# PCK	5.6	54" x 250 yd								
350 High Performance Acrylic	9500PC	High performance with good chemical resistance.	5.6	PET	61.5 PCK	4.5	48" x 108 yd		9	10	10	9	8	-40	450
	3028EK	Same as 9500PC except has an extensible kraft liner which facilitates narrow slitting.	5.6	PET	Extensible Kraft	5.5	48" x 108 yd								
375 High Performance Double Coated	9086	Easy tearing, easy handling.	7.5	Tissue	Glassine black logo	3.0	54" x 750 yd		High	High	Med	Low	Good	-10	250
	9087	Thick adhesive to bond rough surfaces.	10.2	PVC	Glassine green logo	3.0	54" x 750 yd								185
	9088	High temperature resistance with paper liner.	8.3	PET	Glassine red logo	3.0	54" x 750 yd								300
	9088FL	High temperature resistance with film liner.	8.3	PET	Red PP, no print	3.1	54" x 750 yd								300
400 Acrylic Adhesive	415	Splice papers, films, and foils.	4.0	PET	60# DK	4.0	48" x 108 yd		5	5	5	5	5	-60	250
	9420	Splice papers, films, and foils.	4.0	Red PET	60# DK	4.0	48" x 108 yd								
	9576	Splice papers, films, and foils.	4.0	Clear PP	60# DK	4.0	27" x 360 yd								
	9576B	Splice papers, films, and foils.	4.0	Black PP	60# DK	4.0	27" x 360 yd								
	9576R	Splice papers, films, and foils.	4.0	Red PP	60# DK	4.0	27" x 360 yd								
	9576Y	Splice papers, films, and foils.	4.0	Yellow PP	60# DK	4.0	27" x 360 yd								
	9578	For core starting, misc. joining and bonding. Hand tearable for easy use.	4.0	Transluc. PP	60# DK	4.0	27" x 360 yd								
420 Acrylic Adhesive	9783	Clear polyester carrier provides dimensional stability and improved handling with ease of die-cutting.	3.5	Clear PET	PET	2.0	54" x 180 yd		7	7	8	4	6	-40	300
	9795	Double coated version of F9755PC for foam lamination and graphic attachment.	5.6	PET	83# PCK	6.2	54" x 180 yd								
	9795B	Thin polyester black film carrier for improved handling, die-cutting and laminating.	5.6	Black PET	83# PCK	6.2	54" x 180 yd								
	9795BF	Same as 9795B, but with a film liner for rotary die-cutting.	5.6	Black PET	PET	2.0	54" x 180 yd								
573/563* Bond Acrylic	55334	Low outgassing, high stability acrylic. Laminated to other facestock or foils for hard disk drive industry.	3.0	PET	PET/PET	1.0/2.0	54" x 180 yd		7	7	2	2	7	-40	300

* Second number reflects removable adhesive side.

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3M™ Double Coated Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Tape Cal. Mils	Carrier Type	Liner ²		Master Size	Specs	Adhesion			Foam	Chem. Resist.	Temp Range		
					Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic			Low °F	High °F	
573/573* Permanent Bond Acrylic	55106	Permanent, low outgassing.	2.0	PET	PET/PET	2.0/2.0	18.5" x 360 yd		8	7	1	1	9	-40	350	
	700/745/760 Synthetic Rubber	9443NP	High tack rubber adhesive with good adhesion to most plastics.	3.7	HDPE	62# DK	3.7	27" x 360 yd		8	9	9	2	2	-40	200
		9579	Core starting on metal cores.	3.7	HDPE	62# DK	3.7	27" x 360 yd								
	9589	Carpet attachment.	3.7	HDPE	62# DK	3.7	27" x 360 yd									
830/850/860 Natural Rubber	401M	Used for mounting rubber or photopolymer printing plates.	9.0	Paper	54# DK	3.0	22" x 108 yd		8	8	8	5	1	-40	180	
	410M	Core starting/end tabbing of papers, films, and foils.	6.0	Paper	54# DK	3.0	23.5" x 108 yd		8	8	8	5	1	-40	200	
	442KW	Mounting pads to polishing disks.	4.0	PET	72# PCK	4.6	54" x 320 yd		8	8	8	5	1	-40	180	
	442F	Film lined version of 442KW.	4.0	PET	PET	3.0	54" x 320 yd									
	456CR	Same as 442F with low tack blue adhesive on backside for easy removal	4.0	PET	PET	3.0	54" x 320 yd		5	5	8	5	1	-40	180	
900 Misc.	9737	Clear, thin PET carrier. Aggressive and versatile splicing tape.	3.5	PET	55# DK White	3.5	54" x 180 yd		5	5	2	5	7	-10	300	
	9737R	Red, thin PET carrier. Aggressive and versatile splicing tape.	3.5	PET	55# DK White	3.5	54" x 180 yd									
	9738	Clear, non-woven tissue carrier. Aggressive and versatile splicing tape.	4.3	Non-woven tissue	55# DK White	4.3	54" x 180 yd									
	9738R	Red, non-woven tissue carrier. Aggressive and versatile splicing tape.	4.3	Non-woven tissue	55# DK White	4.3	54" x 180 yd									
	9740	Clear, high peel, tack and shear strength. Performance grade splicing tape for corrugators.	3.5	PET	55# DK	3.5	54" x 180 yd		6	6	2	3	6	10	425	
	9741	Clear, thick, super aggressive tape. Adheres to a wide variety of substrates for splicing applications.	6.5	PET	55# Glassine	6.5	54" x 180 yd		7	7	3	7	5	-40	200	
	9816L	General purpose, high tack, rubber-based adhesive.	3.5	PET	60# Kraft	3.5	54" x 200 yd		8	8	7	7	3	-40	150	
	9816M		74# Kraft													
	9816H		14 pt. board													
	9817L	Exposed side is acrylic, liner side is rubber-based. Excellent quick stick and adhesion to high and low energy surfaces.	3.3	PET	60# Kraft	3.5	54" x 200 yd		8	7	6	7	3	-40	175	
	9817M		74# Kraft													
9817H	14 pt. board															
Specialty Acrylic	9599	Acrylic adhesive for high adhesion to a variety of materials including metals and HSE plastics; low-VOC properties suitable for automotive interior applications.	5.0	Non-woven tissue	DK White	4.5	40" x 55 yd		9	8	7	4	7	-40	275	
Specialty Differential Rubber/Acrylic	9377	Flame retardant double-coated tape for carpet installation to bond carpet to interior floorboards.	11.0	PP	58# PCK	4.2	24" x 25 yd		4, 10	N/A	N/A	N/A	8	40	250	

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3M™ Differential Double coated Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Tape Cal. Mils	Carrier Type	Liner ²		Master Size	Specs	Adhesion			Foam	Chem. Resist.	Temp Range	
					Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic			Low °F	High °F
300/400 Acrylic	9466B	Piggy-back adhesive for producing label sets. For photographic bar code labels.	2 1		White PP/ 60# DK	3.5 3.7	48" x 180 yd		7	9	9	9	6	-40	250
									5	5	5	5	5		
350/Silicone Differential Adhesive	9731	Differential adhesive-silicone adhesive on back side. Silicone keypad attachment, printer toner cartridge refurbishing.	5.5	PET	PET/PCK	2.9/ 5.0	38" x 108 yd		9	10	10	9	8	-40	250
573/563* Bond Acrylic	55334	High tack/medium tack acrylic adhesive offers permanent adhesion to one substrate with removability to the other.	3.0	PET	PET/ PET	2.0/ 2.0	17" x 180 yd		7	7	2	2	7	-40	300
830 Rubber/300LSE* Differential Adhesive	560CR	Adhesive 300LSE on face side of most CMP pads, and Adhesive 830 on back side for attachment.	4.0	PET	Clear PET	3.0	54" x 180 yd		8 9	8 10	8 10	5 1	1 7	-40	180
300MP/300LSE Differential Adhesive	9490LE	Adhesive 300MP for foam laminating. Adhesive 300LSE bonds to powder coated metals, oily metals and LSE plastics.	6.7	PET	58# PCK	4.2	54" x 180 yd		7 9	7 10	8 10	8 1	7 7	-40	250
200MP/300LSE Differential Adhesive	9496LE	Adhesive 200MP provides excellent bond strength to a variety of high surface energy substrates. 300LSE bonds to powder coated metals, oily metals and LSE plastic.	6.7	PET	58#/58#	4.2/ 4.2	N/A		10 9	9 10	1 10	3 1	9 7	-40	250

3M™ Removable/Repositionable Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Tape Cal. Mils	Carrier Type	Liner ²		Master Size	Specs	Adhesion			Foam	Chem. Resist.	Temp Range	
					Type	Caliper Mils			Metal	HSE Plastic	LSE Plastic			Low °F	High °F
400/1000* Differential Adhesive	9415PC	Differential adhesive; polyester film carrier.	2.0	PET	78# PCK	6.0	48" x 216 yd		5	5	5	4	5	-20	150
	9416	Differential adhesive; tissue carrier.	1.0	Tissue	70# PCK	5.6	48" x 216 yd		3	1	1	NA	2		
420/1050* Differential Adhesive	9425	High tack/medium tack for repositionable parts.	5.5	UPVC	58# PCK	4.2	48" x 144 yd		8 3	7 1	1 1	4 1	2 2	-20	125
	9425HT	High tack/medium tack acrylic adhesive offers permanent adhesion to one substrate with removability to the other.	5.0	PET	58# PCK	4.2	48" x 144 yd		8 3	7 1	1 1	4 1	2 2	-20	250
800/1070 Repositionable Acrylic	665	Differential adhesive; linerless.	3.5	UPVC	None	N/A	46" x 108 yd		5	5	5	4	5	-60	125
	666	Differential adhesive; lined.	3.5	UPVC	LDPE	4.0	46" x 108 yd								
1000 Repositionable Acrylic	9449S	Laminates to various substrates to make them repositionable.	0.4	None	55# DK	3.2	48" x 360 yd		3	1	1	N/A	2	-20	250
100 High Temp. Acrylic	4658F	Clear, closed foam acrylic foam tape.	31	None	PET	2.0	47" x 175 yd		9	8	1	N/A	9	-40	450

* Second number reflects removable adhesive side.

1 – more information on pages 10-11

2 – more information on page 16

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3M™ Membrane Switch Spacers— Double Coated Spacers

Adhesive Family ¹	Product	Description/Application Ideas	Construction			Sheet Size Master Roll	Specs
			Total Thickness Mils	Top Liner Adhesive Type Carrier Adhesive Type Bottom Liner	Cal. Mils		
100MP High Performance Acrylic	7979	Premium adhesive for harsh chemical and high temperature resistance. High shear strength withstands repeated stresses from switch actuation. Both liners are printed.	9	58# PCK 100 MP* Polyester 100 MP* 58# PCK	2 5 2	24" x 36" 48" x 360 yds	
200MP High Performance Acrylic	7945MP	Excellent temperature, chemical and UV resistance. High shear strength withstands repeated stresses of switch actuation. Designed to separate switch circuitry until actuation. Both liners are printed.	5	58# PCK 200MP Polyester 200MP 58# PCK	2 1 2	24" x 36" 48" x 360 yds	UL
	7953MP	Same characteristics as 7945MP. Primary liner is printed. Also used for graphic attachment.	3.5	58# PCK 200MP Polyester 200MP 58# PCK	1.5 0.5 1.5	24" x 36" 48" x 360 yds	UL
	7953HL	Same characteristics as 7953MP with a single liner.	3.5	83# PCK 200MP Polyester 200MP	1.5 0.5 1.5	48" x 360 yds	
	7956MP	Same characteristics as 7945MP. Both liners are printed.	6	58# PCK 200MP Polyester 200MP 58# PCK	2 2 2	24" x 36" 48" x 360 yds	UL
	7956MWS	For use in graphic and non-graphic applications. Metallized vapor coat and white color provide strong opacity for facilitating backlighting and eliminating floodcoats. Single liner.	6	58# PCK 200MP Polyester (white, vapor coated) 200MP	2 2 2	48" x 360 yds	UL
	7956WDL	Same characteristics as 7956MWS except in sheets.	6	58# PCK 200MP Polyester (white, vapor coated) 200MP 58# PCK	2 2 2	24" x 36" 48" x 360 yds	UL
	7957MP	Same characteristics as 7945MP, except thicker polyester. Both liners are printed.	7	58# PCK 200MP Polyester 200MP 58# PCK	2 3 2	24" x 36" 48" x 360 yds	UL
	7959MP	Same characteristics as 7945MP, except thicker polyester. Both liners are printed.	9	58# PCK 200MP Polyester 200MP 58# PCK	2 5 2	24" x 36" 48" x 360 yds	UL
	7961MP	Same characteristics as 7945MP, except thicker polyester. Both liners are printed.	11	58# PCK 200MP Polyester 200MP 58# PCK	2 7 2	24" x 36" 48" x 360 yds	UL
	7966MWS	For use in graphic and non-graphic applications. Metallized vapor coat and white color provide strong opacity for facilitating backlighting and eliminating floodcoats.	9	58# PCK 200MP Polyester (white) 200MP	2 2 5	48" x 360 yds	UL
7966WDL	Same characteristics as 7966MWS except in sheets.	9	58# PCK 200MP Polyester (white, vapor coated) 200MP 58# PCK	2 2 5	24" x 36" 48" x 360 yds	UL	

1 – more information on pages 10-11

* Products in this platform are 3M™ VHB™ Tapes offering our highest strength.

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3M™ Membrane Switch Spacers— Double Coated Spacers

Adhesive Family ¹	Product	Description/Application Ideas	Construction			Sheet Size Master Roll	Specs
			Total Thickness Mils	Top Liner Adhesive Type Carrier Adhesive Type Bottom Liner	Cal. Mils		
200MP High Performance Acrylic <i>continued</i>	9045MP	Excellent high temperature, chemical, and UV resistance. High cohesive strength withstands repeated stresses of switch actuation. Heavy liner for improved handling and lay-flat properties. Both liners are printed.	5	94# PCK 200MP Polyester 200MP 94# PCK	2 1 2	24" x 36" 48" x 360 yds	UL
	9056MP	Same characteristics as 9045MP, except thicker polyester. Both liners are printed.	6	94# PCK 200MP Polyester 200MP 94# PCK	2 2 2	24" x 36" 48" x 360 yds	UL
	9057MP	Same characteristics as 9045MP, except thicker polyester. Both liners are printed.	7	94# PCK 200MP Polyester 200MP 94# PCK	2 3 2	24" x 36" 48" x 360 yds	UL
	9059MP	Same characteristics as 9045MP, except thicker polyester. Both liners are printed.	9	94# PCK 200MP Polyester 200MP 94# PCK	2 5 2	24" x 36" 48" x 360 yds	UL
	9061MP	Same characteristics as 9045MP, except thicker polyester. Both liners are printed.	11	94# PCK 200MP Polyester 200MP 94# PCK	2 7 2	24" x 36" 48" x 360 yds	UL

3M™ Membrane Switch Spacers— Single Coated Spacers

Adhesive Family ¹	Product	Description/Application Ideas	Construction			Sheet Size Master Roll	Specs
			Total Thickness Mils	Carrier Adhesive Type Bottom Liner	Caliper Mils		
200MP High Performance Acrylic	7991MPW	Adhesive 200MP on one side of a white polyester carrier. Ideal for providing keypad light management in membrane switch circuit.	2	White Polyester Film 200MP 94# PCK	1 1	24" x 36" 48" x 360 yds	UL
	7992MP	Adhesive 200MP on one side of a clear polyester carrier.	4	Polyester Film 200MP 94# PCK	2 2	24" x 36" 48" x 360 yds	
	7992MPW	Adhesive 200MP on one side of a white polyester carrier. Ideal for providing keypad light management in membrane switch circuit.	4	White Polyester Film 200MP 94# PCK	2 2	24" x 36" 48" x 360 yds	UL
	7993MP	Excellent temperature, chemical, and UV resistance. Used for lead protection, dome retainer sheets, and for printing conductive circuitry.	3	Polyester Film 200MP 94# PCK	1 2	24" x 36" 48" x 360 yds	UL
	7995MP	Same characteristics as 7993MP, except with thicker polyester.	5	Polyester 200MP 94# PCK	3 2	24" x 36" 48" x 360 yds	UL
	7997MP	Same characteristics as 7993MP, except with thicker polyester.	7	Polyester 200MP 94# PCK	5 2	24" x 36" 48" x 360 yds	UL

3M™ Screen Printable Adhesives

Product Group	Product	Description/Application Ideas	Adhesion Specs	Size
Screen Printable Adhesives	SP7514	UV curable.	Process dependent	1 liter (6/case) and 5 liters (2/case)
	SP7533	Water-dispersed, pressure sensitive. Excellent balance of peel and shear strength. High heat resistance.	Process dependent	1 gallon (4/case)
	SP7555	UV curable.	Process dependent	1 liter (6/case)

¹ – more information on pages 10-11

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



3M™ VHB™ Tapes

Product Number	Tape Thickness w/o Liner Mils	Description	Liner		Adhesive Type	Temperature Resistance °F		Solvent Resistance	Relative Adhesion		Specs
			Type	Cal. Mils		Minutes Hours	Days Weeks		HSE	LSE	
4611	45	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, dark gray.	Red PE Film	5	General Purpose Acrylic	450	300	High	High	Low	UL 746C File MH17478
4618	25	Double coated conformable acrylic foam, general purpose acrylic adhesive face side, multi-purpose acrylic adhesive liner side, closed cell, white.	Green PE Film	4	Gen. Purp. Acrylic Face/Mult. Purp. Liner	250	200	High	High	Low/Med.*	
4622	45	Double coated conformable acrylic foam, general purpose acrylic adhesive face side, multi-purpose acrylic adhesive liner side, closed cell, white.	Green PE Film	4	Gen. Purp. Acrylic Face/Mult. Purp. Liner	250	200	High	High	Low/Med.*	
4624	62	Double coated conformable acrylic foam, general purpose acrylic adhesive face side, multi-purpose acrylic adhesive liner side, closed cell, white.	Green PE Film	4	Gen. Purp. Acrylic Face/Mult. Purp. Liner	250	200	High	High	Low/Med.*	
4646	25	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, dark gray.	Red PE Film	5	General Purpose Acrylic	450	300	High	High	Low	UL 746C File MH17478
4655	62	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, dark gray.	Red PE Film	5	General Purpose Acrylic	450	300	High	High	Low	UL 746C File MH17478
4905	20	Double coated clear tape, general purpose acrylic adhesive.	Red PE Film	5	General Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478
4910	40	Double coated clear tape, general purpose acrylic adhesive.	Red PE Film	5	General Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478
4914	10	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, white.	Printed DK Paper	3	General Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478
4919F	25	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, black.	Red PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478
4920	15	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, white.	Printed DK Paper	3	General Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478
4926	15	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Printed DK Paper	3	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478
4929	25	Double coated firm acrylic foam, general-purpose acrylic adhesive, closed cell, black.	Clear Polyester	2	General Purpose Acrylic	300	200	High	High	Low	
4930	25	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, white.	Printed DK Paper	3	General Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478
4932	25	Double coated firm acrylic foam, low surface energy adhesive, closed cell, white.	Printed DK Paper	3	Low Surface Energy	200	160	High	High	High	
4936	25	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Printed DK Paper	3	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478
4936F	25	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Clear PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478
4941	45	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Printed DK Paper	3	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478

* Low adhesion on faceside, medium adhesion on liner side.

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3M™ VHB™ Tapes

Product Number	Tape Thickness w/o Liner Mil	Description	Liner		Adhesive Type	Temperature Resistance °F		Solvent Resistance	Relative Adhesion		Specs		
			Type	Cal. Mil		Minutes	Days		Hours	Weeks		HSE	LSE
4941F	45	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Red PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478		
4943F	45	Double coated conformable acrylic foam, low temperature applicable acrylic adhesive, closed cell, gray.	Clear Polyester	2	Low Temp. Applicable Acrylic	300	200	High	High	Low			
4945	45	Double coated firm acrylic foam, multi-purpose acrylic adhesive, closed cell, white.	Printed DK Paper	3	Multi-Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478		
4946	45	Double coated firm acrylic foam, multi-purpose acrylic adhesive, closed cell, white.	Clear PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478		
4947F	45	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, black.	Red PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478		
4949	45	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, black.	Clear Polyester	2	General Purpose Acrylic	300	200	High	High	Low			
4950	45	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, white.	Printed DK Paper	3	General Purpose Acrylic	300	200	High	High	Low	UL 746C File MH17478		
4951	45	Double coated firm acrylic foam, low temperature applicable acrylic adhesive, closed cell, white.	Clear Polyester	2	Low Temp. Applicable Acrylic	300	200	High	High	Low			
4952	45	Double coated firm acrylic foam, low surface energy adhesive, closed cell, white.	Printed DK Paper	3	Low Surface Energy	200	160	High	High	High			
4955	80	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, white.	Clear Polyester	2	General Purpose Acrylic	400	300	High	High	Low			
4956	62	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Printed DK Paper	3	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478		
4956F	62	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Clear PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478		
4957F	62	Double coated conformable acrylic foam, low temperature applicable acrylic adhesive, closed cell, gray.	Clear Polyester	2	Low Temp. Applicable Acrylic	300	200	High	High	Low			
4959	120	Double coated firm acrylic foam, general purpose acrylic adhesive, closed cell, white.	Clear Polyester	2	General Purpose Acrylic	400	300	High	High	Low			
4979F	62	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, black.	Clear PE Film	5	Multi-Purpose Acrylic	300	200	High	High	Med.	UL 746C File MH17478		
4991	90	Double coated conformable acrylic foam, multi-purpose acrylic adhesive, closed cell, gray.	Red PE Film	5	Multi-Purpose Acrylic	250	200	High	High	Med.	UL 746C File MH17478		
5925	25	Double coated very conformable acrylic foam, modified acrylic adhesive, closed cell, black.	Red PE Film	5	Modified Acrylic	300	250	High	High	Med.	UL 746C File MH17478		
5952	45	Double coated very conformable acrylic foam, modified acrylic adhesive, closed cell, black.	Red PE Film	5	Modified Acrylic	300	250	High	High	Med.	UL 746C File MH17478		
5962	62	Double coated very conformable acrylic foam, modified acrylic adhesive, closed cell, black.	Red PE Film	5	Modified Acrylic	300	250	High	High	Med.	UL 746C File MH17478		

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3M™ Double Coated Foam Tapes

Carrier	Product	Construction		Master Size
		Caliper Inches	Adhesive Type	
Urethane <i>White</i>	4004	1/4	100	36" x 25 yd
	4008	1/8	100	46" x 50 yd
	4026	1/16	100	46" x 100 yd
	4032	1/32	100	46" x 175 yd
	4085	3/64	740	46" x 144 yd
Urethane <i>Black</i>	4052	1/32	100	46" x 175 yd
	4056	1/16	100	46" x 100 yd
Vinyl -- <i>Black</i>	4408	1/8	430	46" x 50 yd
Vinyl <i>Black or White</i>	4416	1/16	430	46" x 100 yd
	4432	1/32	430	46" x 175 yd
Polyethylene <i>Black or White</i>	4462	1/32	745	48" x 175 yd
	4466	1/16	745	48" x 100 yd
	4492	1/32	430	48" x 175 yd
	4496	1/16	430	48" x 100 yd
Acrylic	4658F	1/32	100	47" x 108 yd
Elastomeric	4921	1/64	100	38" x 175 yd

3M™ Bonding Films

Product Number	Caliper Mils	Base Resin	Color	Bond/Cure Time	Bondline Temp(°F)	Description	Size
406	3.0	EAA	Clear	2-5 sec	320	Flexible, light colored, thermoplastic bonding film exhibits good adhesion to a variety of substrates, especially metals.	48" x 180 yd
583	2.0	Nitrile Phenolic	Brown	2-5 sec	250	Heat or solvent-activated dry film adhesive.	48" x 180 yd
588	6.0	Nitrile Phenolic	Yellow	2-5 sec	250	Heat-activated dry film adhesive.	21" x 180 yd
615/ 615S	4.0	Polyester	Tan	2-5 sec	280	Flexible, light colored, thermoplastic bonding films exhibit good adhesion to a variety of substrates. 615S contains a nonwoven scrim.	48" x 180 yd
615R	6.0	Polyester	Tan	2-5 sec	280	Flexible, light colored, thermoplastic film has good adhesion to a variety of substrates.	24" x 250 ft*
620	6.0	Polyester	Tan	2-5 sec	280	Three layer bonding film consisting of a 2 mil polyester film core coated both sides with a 2 mil of a polyester based thermoplastic adhesive including a dielectric insulating layer.	48" x 180 yd
668	4.0	Polyester	Tan	2-5 sec	320	Flexible, light colored, thermoplastic bonding film is tacky at room temperature and has good adhesion to a variety of substrates at elevated temperatures.	48" x 180 yd
690	8.0	Polyester	Tan	2-5 sec	280	Flexible, light colored, thermoplastic film is tacky at room temperature and has good adhesion to a variety of substrates at elevated temperatures.	24" x 250 ft*
AF42	3.0	Epoxy	Translucent	60 min.	350	Excellent heat resistance and structural bond strength.	20" x 72 yd
AF111	10.0	Epoxy	Off-white	60 min.	250	Excellent heat resistance and structural bond strength.	40" x 36 yd

* MOQ is 2 rolls

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3M™ Electrically and Thermally Conductive Tapes

Adhesive Family ¹	Product	Description/Application Ideas	Adhesive Caliper Mils	Liner ²		Master Size	Specs	Adhesion				Chem. Resist.	Temp. Range		
				Type	Caliper Mils			Metal	Plastic HSE	LSE	Foam		Low °F	High °F	
Electrically Conductive	9703	Z-axis only electrically conductive for interconnects, low outgassing version of 9705.	2.0	58# PCK	4.0	24" x 108 yds		5	4	4	n/a	6	20	160	
	9705	Z-axis only electrically conductive for interconnects, acrylic adhesive, Ag fillers.	2.0	58# PCK	4.0	24" x 108 yds		5	5	4	n/a	6	20	160	
	9706	Z-axis only electrically conductive for interconnects, higher adhesion ECATT 9705 version, Ag fillers.	2.0	Dual Lined PET	2.0 / 2.0	24" x 108 yds		8	6	4	n/a	6	20	160	
	9709	XYZ-axis conductive adhesive with inherent EMI shielding performance, Ag fillers.	2.0	Dual Lined PET	1.5 / 2.0	14" x 108 yds		5	5	4	4	6	20	160	
	9709S	XYZ-axis conductive adhesive with inherent EMI shielding performance, Ag fillers. Good grounding to stainless steel and plated surfaces.	2.0	Dual Lined PET	1.5 / 2.0	14" x 108 yds									
	9709SL	Premium low release liner version of 9709S.	2.0	Dual Lined 58# PCK/PET	2.0 / 4.0	14" x 108 yds									
	9712	XYZ-axis conductive adhesive for EMI shielding (acrylic adhesive, carbon scrim).	5.0	58# PCK	4.0	24" x 108 yds		5	5	5	3	6	20	160	
	9713	XYZ-axis conductive adhesive for EMI shielding (acrylic adhesive, Ni-carbon scrim).	3.0	58# PCK	4.0	24" x 108 yds		5	5	4	4	6	20	160	
	9719	XYZ-axis conductive adhesive for EMI shielding (silicone adhesive, Ni-carbon scrim).	4.0	PET	4.0	14" x 108 yds		4	6	7	7	7	20	160	
Thermally Conductive	8805	Improved adhesion ceramic-filled thermally conductive adhesive transfer tape.	5.0	PET	2.0	14" x 36 yds		8	6	4	n/a	6	20	185	
	8810	10 mil version of 8805.	10.0												
	8815	15 mil version of 8805.	15.0												
	8820	20 mil version of 8805.	20.0												
	9882	Ceramic-filled adhesive transfer tape.	2.0				UL	7	4	2	n/a	6	20	185	
	9885	5 mil version of 9882.	5.0				UL								
	9889FR	Soft thermal tape.	40.0	PCK	5.5	Call		5	5	4	n/a	5	20	160	
	9890	10 mil version of 9882.	10.0	PET	2.0	14" x 36 yds	UL	7	4	2	n/a	6	20	185	

1 – more information on pages 10-11
 2 – more information on page 16

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3M™ Thermally Conductive Interface Pads

Product	Product Description				Thermal Performance					Dielectric Properties		UL Flam- mability Rating	Potential Operating Temperature Range (°C)***		
	Base Material Type	Product Thick- ness (mm)	Filler Type	Liner Type	Conduc- tivity (W/m-K 3M ASTM D5470 TM	Impedance				Dielectric Strength (KV/mm)	Volume Resis- tivity (ohm/cm)				
						Thickness		°C-in ² /W						°C-cm ² /W	
						mil	mm								
5516/5516S* Soft Pad	Filled Silicone Polymer	0.5	Ceramic	PET	3.1	20	0.5	0.31	2.0	3.1	6.9 x 10 ¹⁴	3M V1 or V0 TM**	Short Term (Hours-Days): 150°. Long Term (Weeks- Months): 100-125°C		
		1.0				40	1.0	0.53	3.4						
		1.5				60	1.5	0.76	4.9						
		2.0				80	2.0	0.98	6.3						
5519/5519S* Soft Pad		0.5			4.1	20	0.5	0.29	1.9	3.1	6.9 x 10 ¹⁴	3M V1 /VO or VO TM**			
		1.0	40	1.0		0.48	3.1								
		1.5	60	1.5		0.65	4.2								
		2.0	80	2.0		0.82	5.3								
5591S* Ultra Soft Pad		0.5			1.0	20	0.5	1.14	7.3	7.9	2.0 x 10 ¹²	3M V1 or V0 TM**			
		1.0	40	1.0		1.92	12.4								
		1.5	60	1.5		2.71	17.5								
		2.0	80	2.0		3.49	22.5								
5592/5592S* Soft Pad		0.5			1.1	20	0.5	0.64	4.1	14.7	3.0 x 10 ¹²	3M V1 or V0 TM**			
		1.0	40	1.0		1.15	7.4								
		1.5	60	1.5		1.66	10.7								
		2.0	80	2.0		2.43	15.7								
5595/5595S* Soft Pad		0.5			1.6	20	0.5	0.70	4.5	15.7	5.0 x 10 ¹²	3M V1 or V0 TM**			
		1.0	40	1.0		1.21	7.8								
		1.5	60	1.5		1.71	11.0								
		2.0	80	2.0		2.22	14.3								
5589H**** Soft Pad	Filled Acrylic Polymer	1.0			2.0			1.33	8.6	21	3.4 x 10 ¹²	UL VO	Short Term (Hours-Days): 110°. Long Term (Weeks- Months): 80°C		
		1.5				1.67	1.67								
5590H****		0.5			3.0			0.46	3.0	33	2.7 x 10 ¹²	UL VO			
		1.0				0.70	4.5								
		1.5				0.95	6.1								

* Note 1) The "S" version has a polymeric permanent film on one side to be used as a non-tacky surface for ease in reworking an assembly. Thermal Conductivity and Thermal Impedance are slightly changed with addition of the film, while Dielectric strength is improved. 2) Optional thicknesses > 2.0 mm.

** 3M V1 or V0 TM Notes: 1) Test results based on 3M UI Test Method. 2) The 3M V1 TM testing applies to the 0.5 mm thick products in the "S" version.

*** Thermal impedance is measured with the test sample under a nominal 10 psi pressure to reflect a typical end use application.

**** The "H" version has both a very low tack surface and a medium tack surface.

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Notes

3M™ Performance Label Materials



Today's printing world is increasingly complex. 3M technologies and resources simplify the complexities to help you effectively and competitively meet your customer needs and expectations.

Finding the right materials for your customer's needs is easier than ever with the more than 150,000 combinations of 3M adhesives, topcoats, facestocks, and liners. To strengthen your competitive advantage, rely on 3M for the following:

- Comprehensive listing of UL recognized and CSA accepted products
- **Dedicated team of Application Development Specialists to assist you (1-800-422-8116)**
- Web-enabled Label Solutions Request (LSR) with 24/7 access
- Ability to pattern coat adhesives
- Both solvent and emulsion acrylic adhesives

Solutions include the following label materials:

- 3M™ Thermal Transfer Label Materials
- 3M™ Press Printable Label Materials
- 3M™ Dot Matrix Label Materials
- 3M™ Digital Label Materials
- 3M™ Removable Label Materials
- 3M™ Tamper Evident Label Materials
- 3M™ Health Care Label Materials
- 3M™ Sheet Label Materials
- 3M™ HP Indigo-optimized Label Materials
- 3M™ Overlamine Label Materials
- 3M™ Foil Label Materials
- 3M™ Tire Label Material
- 3M™ Decorative Label Materials



Adhesive Families—Label Materials

100 High Temperature Acrylic

- Up to 450°F short-term heat resistance and excellent solvent resistance.
- High peel strength compared to other acrylic formulations.
- Exceptional shear strength even at elevated temperatures.
- Exhibits low outgassing characteristics.

150 High Temperature Acrylic

- Up to 450°F short-term heat resistance and excellent solvent resistance.
- High internal strength ideal for applications on high surface energy plastics and metals.

200 High Performance Acrylic

- Up to 350°F short-term heat resistance and medium solvent resistance.
- Excellent peel strength on metal and HSE plastics.
- Good long term aging.

200MP High Performance Acrylic

- Up to 400°F short-term heat resistance and excellent solvent resistance.
- Outstanding adhesion to metal and high surface energy plastics.
- Excellent shear strength to resist slippage and edge lifting.
- Short term repositionability for placement accuracy.

300 High Strength Acrylic

- Up to 250°F short-term heat resistance.
- Greater initial adhesion especially to low surface energy plastics.
- Quick flowing to speed lamination of textured plastics, foams, fabrics, and coated papers.

310 High Precision Acrylic

- Provides firmness and high precision strength on a variety of surfaces including HSE plastics and metals.
- Compatible with a variety of print technologies including thermal transfer and laser printing.

320 High Tenacity Acrylic

- Up to 250°F short-term heat resistance.
- High bond strength to a variety of surfaces.
- Excellent flagging resistance on small diameter surfaces.

350 High-holding Acrylic

- Ideal for very high bond strength to many surfaces.
- Most universal adhesive – ideal for powder coatings, LSE plastics, and oily metals.
- Up to 350°F short-term heat resistance and excellent solvent resistance.

400 Low Temperature Acrylic

- Good low temperature performance and peel strength on many surfaces.
- Up to 250°F short-term heat resistance.
- Excellent adhesion to uncoated papers.
- Clarity and UV resistance for window label applications.

500 High Stability Acrylic

- Cleanly removes from most surfaces up to one year after application.
- Excellent for die-cut masks needing outdoor performance and removability.
- For vinyl label stocks only.

1000 Repositionable Acrylic

- Good holding to many surfaces.
- Clean removal or numerous reapplications.
- Stain resistance on many surfaces.

F2201 Freezer Acrylic

- Low application temperature, 0°F, high initial tack.
- Good moisture resistance.
- Good long-term adhesion.



G1120 Rubber Based Tire Tread

- Extremely aggressive.
- Designed for use in tire label applications.

P1110 Permanent Rubber Based

- Excellent ultimate adhesion.
- High initial tack.
- Good choice for labeling LSE or waxy surfaces.
- Good choice for toy labeling applications.

P1212 General Purpose Acrylic

- Excellent clarity, good initial tack.
- Excellent die-cutting properties.
- Good UV resistance.
- UL recognized for indoor use.

P1400 High Performance Tackified Acrylic

- Excellent UV and moisture resistance.
- Formulated for use in demanding environments.
- Excellent adhesion to wide variety of substrates.
- UL recognized for indoor / outdoor use.

P1410 Tackified Acrylic

- High tack.
- Neutral pH.
- Good adhesion to polyolefins.

P1425 High Shear Acrylic

- Good shear performance.
- Good plasticizer and chemical resistance.
- Adheres well to LSE plastics.

P1480 High Performance Tackified Acrylic

- High initial tack.
- Good ultimate adhesion on a wide variety of surfaces.
- Excellent choice for textured surfaces or powder coats.
- Designed to meet difficult automotive underhood battery specifications.

P1500 Medical Acrylic

- Excellent peel and tack.
- Suitable for direct skin contact.

P1650 High Performance Acrylic

- Designed to meet difficult automotive underhood specifications.
- Good chemical and moisture resistance.
- Excellent thermal stability.
- Resistance to many automotive and industrial fluids.

P1655 White Opaque High Performance Acrylic

- Excellent opacity.
- Designed to meet difficult automotive underhood specifications.
- Excellent thermal stability.

R3500 Ultra Removable Adhesive

- Good initial tack and long-term adhesion.
- Multi-repositionable, static cling alternative.
- Clean removability (no residue).

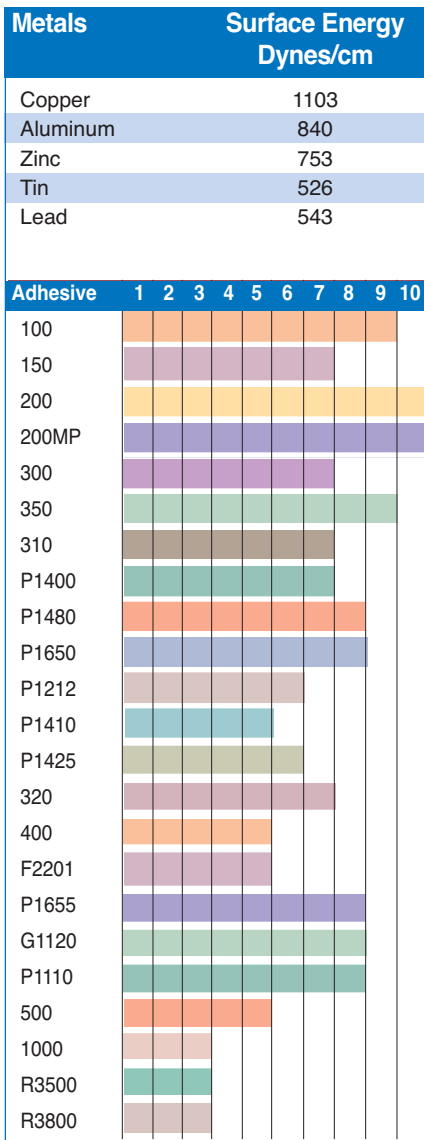
R3800 Ultra Removable Adhesive

- Lower tack version of R3500.
- Good initial tack and long-term adhesion.
- Clean removability (no residue).
- Lower tack version of Adhesive R3500.

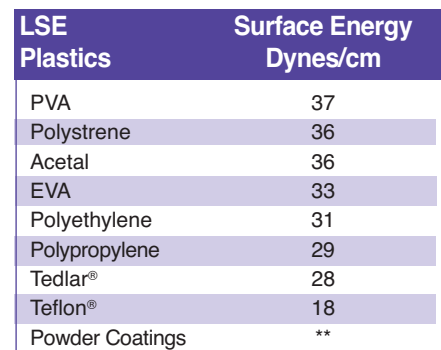
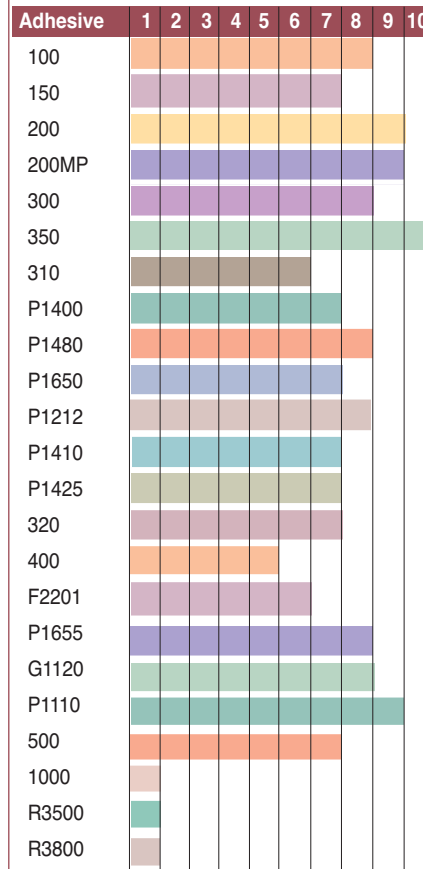
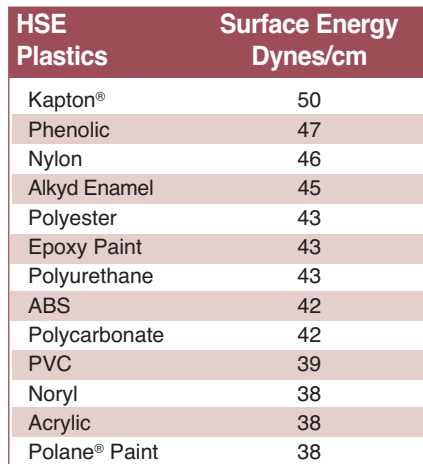


Adhesive Selection Chart Based on Surface Energy

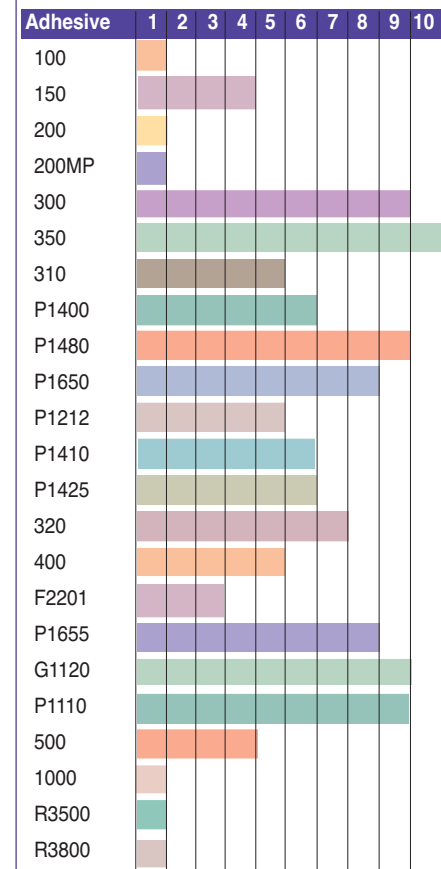
These charts are based on relative adhesion within each given surface energy category.



1=Lowest Performance 10=Highest Performance



**Broad range of surface energy.



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Adhesive Properties

	Adhesive Family	Temperature ° F			Adhesive Properties			Adhesion			Environmental Properties Resistance to:			Products
		Minimum Application	Service		Initial Peel	Ultimate Peel	Con-vertibility	Metal	HSE	LSE	Chemical	UV	Moisture	
			Low	High										
High Temperature Adhesives	100	50	-40	450	3	9	10	9	8	1	10	10	10	8418, 7811, 7812, 8417
	150	50	-40	450	6	7	10	7	7	4	5	10	9	3921
	200	50	-40	350	3	10	10	10	9	1	7	8	8	7852HL, 7853HL, 3929, 7804, 7885, 7941
	200MP	50	-40	400	4	10	10	10	9	1	10	10	10	9017FL, 9018 FL
High Performance Adhesives	300	50	-40	300	6	7	4	7	8	9	7	7	8	7331, 7860, 7331FL, 7480, 7810, 7880, 7880HL, 7350FL, 7350, 7861, 7881, 7222, 7865, 7813, 7883, 7883HL, 7887, 7323, 7863, 7604FP, 7890, 7004, 7380, 7381, 7866, 7935, 7937, 7902, 7931, 7980, 7950, 7924, 7925
	350	50	-40	350	7	9	8	9	10	10	9	7	10	7051SA, 7214SA, 7220SA, 7868, 7871, 7871FL, 7850TL, 7874, 7876, 7879FL, 7873, 7872, 7872FL, 7605, 7779, 7847, 7613T, 7930T, 7046, 7044, 7904, 7053, 7055, 7035, 7037, 7907, 7908, 7908FL, 7905, 7026, 7028, 7033, 7903, 7903FL, 7246, 7247
	310	50	-40	300	5	6	6	7	7	5	7	7	8	7816, 7816FL, 7815, 7815FL, 7840, 7840TL, 7845TL, 7818, 7897, 7875, 7841, 7776
	P1400	40	-20	302	4	6	6	7	7	6	5	8	7	OFM03402, OFM2502, FM02511K, OFM3102, OFM2402, OFM2802, OFM2902, OFM3602, FM051305, FM051405, FM051505, FM051605, FM051705, OFV0202, FP032002, OFM0102, OFM010N, FV02610N, OFL070N, OFL020N, 7045, 7043, 7054, 7036, 7029, 7025, 7032, 7027, 7225, 7244, 7238, 7250, 7242, 7034, 7291, 7777
	P1480	40	-22	300	6	8	4	8	8	9	7	5	7	FM041902, FM047202, FM043302, FM047302, FM046202, FV0216R2, FV022702, FV023202, FV025102, FP022102, FP022202
	P1650	40	-40	302	6	7	4	8	7	8	7	5	7	FM033202, FM034602, FM043702, FP035402, FPE0570N, PB009150
General Purpose	P1212	40	-20	302	4	5	6	6	8	5	4	5	6	FM122, FM282, FM031902, FM1182, FM162, FM042, FM02090K, FM142, FM14K, FM1681, FM232, FM092, FM052, FM062, FM152, FM912, FM802, FM112, FV032, FV062, FV102, FV1052, FV122, FV01462, FV018702, FV172, FV232, FV362, FP010402, FP012602, FP018802, FP0216122, FP011, FP029502, FP082, FS022, FS442, FA012, FA032, FAC00102, FM011, FM01N, FM022, FM1142, FM292, FM452, FM45N, FM071, FMA92, FV02800N, FV02490N, FLO1N, FLO2N, FA102, FA112
	P1410	40	-20	302	6	6	6	5	6	4	5		5	FV292, FV512, FV612, FP102, FMV01202, FMV01402, FMV02, FMV22
	P1425	40	-20	302	3	5	8	6	7	6	4	5	5	FV02410K, FPM001602, FS012602, FPE05102

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Adhesive Properties (cont.)

	Adhesive Family	Temperature ° F			Adhesive Properties			Adhesion			Environmental Properties Resistance to:			Products
		Minimum Application	Service		Initial Peel	Ultimate Peel	Convertibility	Metal	HSE	LSE	Chemical	UV	Moisture	
			Low	High										
Specialty Adhesives	320	50	-40	250	7	7	6	7	7	7	6	6	8	7740, 3690E, 3698E, 7800, 7801, 7002, 7000, 7000FL, 7014, 7110, 7110, 7940
	400	10	-60	250	5	5	6	5	5	5	5	10	8	7120, 7733, 7830, 7864, 7753, 7831, 7745FL, 7710, 7730FL, 7731FL, 7741, 7743FL, 7732FL, 7742, 7744FL, 7745FL, 8042, 7735FL, 7737FL, 7738FL, 7920
	F2201	0	-40	250	3	4	5	5	6	3	3	5	4	FM01961K, FV022902, FV100K, FV252, FP016102, FP024102, FP092
	P1655	40	-40	302	4	7	4	8	8	8	7	5	7	FP032302
Rubber based	G1120	40	-20	140	7	9	2	8	8	9	3	3	3	FP028502
	P1110	55	40	155	6	7	4	8	9	9	3	3	3	FM53R2, FV052, FP027402, FS242
Removable Adhesives	500	50	-40	175	4	5	3	5	7	4	5	10	10	7600, 7901
	1000	50	-20	250	2	3	7	3	1	1	2	5	3	7113, 7142
	R3500	40	-20	155	1	3	6	3	1	1	2	7	3	7065, 7063, FM01972, FM1732R, FV1222, FV016402, FV1102, FP016902, FP01650N, FP0862, FV020605, FV1405
	R3800	50	20	155	1	3	6	3	1	1	2	7	2	FV010002, FP024502, FP024402

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Facestock Properties

Facestock	Film Properties	Processing Properties		Environmental Resistance			Features	Products
	Service Temperatures	Printability	Conformability	Chemical	Moisture	Outdoor/UV		
Acetate	-20° to 140° F		2	2	2	2	Rigid film, tears easily, works well for security seals or overlaminate.	7710, 7723, FA012, FA032, 8042, FA102, FA112
Acrylate	-40° to 175° F	Thermal Transfer	3	7	7	10	Excellent clarity and UV resistance.	7735FL
Acrylate, Cast	-40° to 392° F 530° for 30 sec. 500° for 7 min.	Thermal Transfer	7	9	9	7	Ultra-high temperature performance.	3921
Acrylate, Cast Modified	-40° to 392° F 530° for 1 min. 482° for 5 min. 440° for 60 min.	Laser Markable	7	10	8	10	Ultra-high temperature performance. Can be imaged and “kiss cut” by a laser beam. Long-term readability, chemical and abrasion resistance.	7847
Acrylic	-20° to 140° F	Flexographic	3	5	7	7	Good clarity and UV resistance.	FAC00102
Aluminum Foil	-40° to 350° F	Embossing, Flexographic, Letterpress, Screen	4	7	10	10	Vinyl top-coated for ink receptivity. Facestock can be embossed using dot matrix impact printers.	7800, 7801, 7804, 7940, 7941
Kapton® Polyimide	-40° to 500° F	Dot Matrix, Thermal Transfer	6	10	10	10	Ultra-high temperature performance. Easy readability of variable information and bar codes.	7811, 7812
Kimdura™, Smudgeproof Polyolefin	-20° to 170° F	Flexographic, Screen, Thermal Transfer	5	7	7	7	Biaxially oriented film offers consistent caliper, suitable for high speed dispensing.	7291
Lexan® Polycarbonate	-40° to 250° F	N/A	4	8	9	7	Used to achieve the attractive appearance of subsurface screen printed polycarbonate.	7737FL, 7738FL, FL01N, FL02N, OFLO10N, OFLO20N
Paper	-40° to 350° F	Flexographic, Thermal Transfer	3	3	2	6	Pharmaceutical and performance paper.	7002, 7004, 7000, 7000FL, 7113, 7142, 7110, 7014, 7109, 7120
Polyart®	-40° to 160° F	Dot Matrix, Flexographic, Ion Deposition, Letterpress, Screen, Thermal Transfer	7	6	8	7	Non-glare surface, biaxially oriented, printable with some cold fusing and flash fusing laser printers. Accepts handwriting with a ballpoint pen or marker.	FPE05102
Polyester EDP	-40° to 302° F -20° to 257° F Clear only	Dot Matrix, Flexographic, Laser, Letterpress, Offset, Screen, Thermal Transfer	2	9	9	8	Optimal clarity for overlaminate applications. High quality rigid film with high tensile strength. Excellent dimensional stability. Not recommended for curved surfaces. High quality rigid film. High tear resistance, notch sensitive.	FM046302, FM162, OFM2502, FM142, FM14K, OFM3002, FM043302, FM152, OFM2702

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Facestock Properties (cont.)

Facestock	Film Properties	Processing Properties		Environmental Resistance			Features	Products
	Service Temperatures	Printability	Conformability	Chemical	Moisture	Outdoor/UV		
Polyester, Translucent EDP	-40° to 302° F -20° to 257° F Clear only	Dot Matrix, Flexographic, Laser, Letterpress, Offset, Screen, Thermal Transfer	2	9	9	8	Optimal clarity for overlamine applications. High quality rigid film with high tensile strength. Excellent dimensional stability.	FM02090K, FM1681
Polyester MC	-40° to 302° F	Flexographic, Laser, Screen, Thermal Transfer	2	9	9	8	Not recommended for curved surfaces. High quality rigid film.	FM01961K, FM022202, FM031902, FM034602, FM1182, OFM03502, FM01972
Polyester PT	-40° to 302° F -20° to 257° F Clear only	Flexographic, Screen, Thermal Transfer	2	9	9	8	High tear resistance, notch sensitive.	FM050602, FM050702, FM050802, FM952, FM035102, 7036, 7037, 7903, 7903FL, 9017FL, 9018FL
Polyester, Clear Laser TC	-20° to 257° F	Dot Matrix, Flexographic, Laser, Letterpress, Offset, Screen, Thermal Transfer	2	9	9	8		FM02511K, 7845TL,
Polyester, Indigo	-20° to 257° F	HP Indigo Process, Letterpress	2	9	9	8		7225, 7244, 7238, 7250, FM051305, FM051405, FM051505, FM051605, FM051705
Polyester TC	-40° to 302° F -20° to 257° F Clear only	Flexographic, Hot Stamp, Ion Deposition, Letterpress, Offset, Screen, Thermal Transfer	2	9	9	8	Products	7331, 7860, 7331FL, 7816, 7816FL, 7817, 7830, 7864, 7868, 7871, 7871FL, 8418, FM033202, FM041902, FM122, FM282, FM53R2, OFM0302, OFM03402, 722SA, 7214SA, 7220S, 7480, 7810, 7814, 7815, 7815FL, 7840, 7840TL, 7842, 7850TL, 7874, 7850, 7850HL, 7350FL, 7350, 7861, 7740, 7753, 7831, 7876, FM042, OFM1502, OFM3102, 7745FL, 7845TL, 7881, FM232, OFM2102, 7222, 7865, 7813, 7818, 7853HL, 7879FL, 7883, 7883HL, 7887, 7897, FM043702, FM047202, FM092, OFM2402, 7323, 7863, 7873, FM047302, FM052, FM062, FM1172, FM912, OFM0702, OFM2802, FM046202, FM102, FM112, OFM1102, OFM2902, 7819, 7872, 7872FL, 7875, OFM3602, FM182, FM1152, OFM2602, 7744FL, 7745FL, 7380, 7381, 7866, 7384, 7935, 7937, FMV01202, FMV01402, FMV02, FMV22, 5770, 5771, FM1732R, 7034, 7035, 7907, 7908, 7908FL, 7920, 7931, 7935, 7937, 7980, 7029, 7905, 7950, 7025, 7026, 7032, 7027, 7028, 7033, 7924, 7925
Polyester NTC	-20° to 257° F	N/A	2	9	9	8	Optimal clarity for overlamine applications.	7730FL, 7731FL, 7741, 7743FL, 8417, FM011, FM01N, FM022, FM1142, FM292, FM452, FM45N, OFM0102, OFM010N, 7732FL, 7742, FM071, FMA92
Polyethylene	-20° to 140° F	Flexographic	10	3	7	4	High tear resistance and elongation, low tensile strength.	FPE05002, FPE0570N
Polyolefin	-40° to 140° F	Flexo, TT	9	7	7	3	Extremely pliable and conformable, moisture resistant.	FP035402

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Facestock Properties

Facestock	Film Properties	Processing Properties		Environmental Resistance			Features	Products
	Service Temperatures	Printability	Con-form-ability	Chem-ical	Mois-ture	Out-door /UV		
Polypropylene, Label-Lyte® EDP	-20° to 220° F	Flexographic, Thermal Transfer	8	7	8	7	Outdoor UV durability up to one year. Excellent ink adhesion, good stiffness for auto application; excellent opacity.	FP010402
Polypropylene, Label-Lyte® T2S	-20° to 220° F	Flexographic, Thermal Transfer	8	7	8	7		7776, 7777, 7779, 7783, FP018802, FP018902, FP020002
Polypropylene, Label-Lyte® TC	-20° to 220° F	Flexographic	8	7	8	7		FP028502
Polypropylene T1S	-20° to 140° F	Flexographic	8	7	8	7	Semi-hard film with high tear resistance and good dimensional stability.	FP011
Polypropylene T2S	-20° to 140° F	Flexographic	8	7	8	7		FP029502, FP8302
Polypropylene EDP	-20° to 140° F	Flexographic, Ion Deposition, Lithography, Offset, Screen, Thermal Transfer	6	7	8	3	Excellent opacity, moisture and tear resistance, excellent dimensional stability, resistant to cracking and abrasion, antistatic coating to eliminate double feeding when printing and folding.	FP0216R2, FP022102, FP024102, FP027402, FP032002, PB009150
Polypropylene TC	-20° to 140° F	Flexographic	8	7	8	7	High tensile strength, but notch sensitive.	FP031702, FP032302, 7774, FP082, FP092, FP102, FPM001602, FPM01702, FP012602, FP016102, FP022202, FP027202, FP531, FP011902, FP016902, FP024502, FP01650N, FP024402, FP0862, FP028502
Polypropylene, White Matte	-20° to 140° F	Flexographic	9	6	8	5	Excellent durability and moisture resistance.	FP032102, FP032202, FP0832
Polypropylene, HP Indigo	-20° to 220° F	HP Indigo Digital Letterpress	8	7	8	7	Excellent opacity and good stiffness.	7227, 7237, 7242
Polystyrene	-20° to 140° F	Flexographic	2	2	5	2	Economical, hard, rigid film. Tear and temperature sensitive. Not recommended for outdoor use.	FS12602, FS012702, FS242, FS022, FS0592, FS302, FS442
Retro-Reflective Film	-40° to 300° F	Thermal Transfer	7	7	9	8	When bar code printed, the facestock extends the max. and min. scanning distance of long-range scanners.	3929

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Facestock Properties (cont.)

Facestock	Film Properties	Processing Properties		Environmental Resistance			Features	Products
	Service Temperatures	Printability	Conformability	Chemical	Moisture	Outdoor /UV		
Teslin®, Polyolefin	-40° to 250° F	Flexographic, Continuous Laser	9	8	9	7	Durable alternative to paper labels, excellent abrasion properties	7841
Valéron®	-70° to 200° F	Flexographic, Lithographic, Thermal Transfer	8	8	9	8	High tear resistance and elongation; low tensile properties.	FPE05202
Vinyl (PVC) EDP	-20° to 140° F	Dot Matrix, Flexographic, Laser, Thermal Transfer	10	4	7	7	<p>Conformability reduces as gauge increases.</p> <p>Multi-purpose film available in flexible, semi-rigid or rigid.</p> <p>Polymerically plasticized for dimensional stability.</p> <p>Handles outdoor conditions well.</p> <p>Will burn in flame, but should be self-extinguishing after removal.</p> <p>Low tear resistance.</p> <p>Available in medical grades.</p>	FV02410K, FV026302, FV062, FV100K, FV1052, FV502, FV512, FV712, FV822
Vinyl (PVC) NTC	-20° to 140° F	Press Printable Solvent Inks	10	4	7	7		7605, FV01405, FV0216R2, FV024602, FV024802, FV028802, FV102, FV018702, FV612, FV362, 3690E, 3698E, 7045, 7046, 7051SA, 7065, 7902, 7904, 7901, 7052, 7053, 7906,
Vinyl (PVC) TC	-20° to 140° F	Flexographic, Letterpress	10	4	7	7		7604FP, 7613T, 7890, 7600, 7885, 7930T,
Vinyl (PVC) TC1	-20° to 140° F	Flexographic	10	4	7	7		FV172, FV1102
Vinyl (PVC) TC2	-20° to 140° F	Flexographic	10	4	7	7		FV052, FV232
Vinyl (PVC) TC3	-20° to 140° F	Flexographic, Letterpress	10	4	7	7		FV021802, FV023102, FV023202, FV025102, FV032, FV122, FV212, FV252, FV292, FV312, FV010002, FV1222
Vinyl (PVC) TC6	-20° to 140° F	Flexographic, Thermal Transfer	10	4	7	7		FV020502, FV022702, FV022902, FV0280602, OFV0202, FV01462, FVS110S, FVS12S, FV016402
Vinyl (PVC) TC9	-20° to 140° F	UV Flexographic, UV Screen	10	4	7	7		FV020605, 7043, 7044, 7054, 7055
Vinyl, Textured	-20° to 140° F	N/A	10	4	7	7		FV02800N, FV02490N, FV02610N

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Liner Selection

Liner	Mil (nominal) Thickness	Description	Layflat	Semi Layflat	Back Side Printable	Fanfold	Roll-to-Roll
40# SC,43# DK	2.4	Semi-bleached, super calendered/densified kraft sheet.					•
44# Polykraft	3.1	Polypropylene has been laminated to a 44# brown kraft sheet. Excellent caliper control and strength making it ideal for high-speed labeling applications.					•
50# SC, 55# DK	3.1	Semi-bleached, super calendered/densified kraft sheet designed for high-speed die-cutting and matrix stripping. Not recommended for sheet on press applications.					•
50# C2S	3.1	Back side has been lightly coated with silicone to reduce label pick. Recommended when using very soft adhesives or where heavy adhesive coat weights are required.					•
60# SC, 60# DK	3.4	Semi-bleached, super calendered kraft sheet. Excellent for perforation and fanfold applications where additional stiffness is required.		•		•	•
65# CCK	3.4	Stabilized bleached kraft sheet with good caliper control. Ideal for most sheet-on-press applications. Back side is printable.		•	•	•	•
78# CCK, HL	4.6	Bleached, clay-coated kraft sheet. Excellent for sheet-on-press applications where additional strength and stiffness is required.		•	•	•	•
83# Laser	5.9	Stabilized bleached kraft. Less expensive alternative to our 80# TB for less critical laser applications. Has special surface finish on the back side to enhance feed and reduce static problems.	•		•		
90# Polycoated	7.0	Bleached kraft sheet polyethylene-coated on two sides.	•				
100# Printable	7.0	Bleached clay-coated, one-side sheet. Good dimensional stability and caliper control.	•		•		
1.0 Polyester	1.0	Used when high strength and caliper control are important. Recommended for high-speed labeling application or where clarity of the adhesive is critical.					•
1.5 Polyester	1.5	Clear polyester. Used when high strength and caliper control are important. Recommended for high-speed labeling applications or where clarity of the adhesive is critical.					•
4.0 Polyester	4.0	Clear polyester. Excellent for doming applications where ultimate lay flat is required.	•				

The chart above is a general guide. Facestocks and adhesives should be tested with actual components to ensure acceptable performance.

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3M™ Thermal Transfer Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Gloss White</i>	7816	Offers excellent durability. Film adhesive that resists oozing. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 0.8 3.2	PET, White TC 310 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	7816FL	Same as 7816 label stock, except with polyester liner.	2.0 0.8 1.5	PET, White TC 310 Polyester Film	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7868	Excellent high temperature resistance. Excellent adhesion to LSE plastics and smooth powder coats. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 1.1 3.2	PET, White TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	7871	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 1.8 3.2	PET, White TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	7871FL	Same as 7871 label stock, except with film liner.	2.0 1.8 1.5	PET, White TC 350 Polyester Film	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	8418	Ideal for fuel line identification. Meets MIL-T-9906C when used with 8417 overlaminating film.	1.0 1.4 2.5	PET, White TC 100 43# Densified Kraft	48 x 216 yd	Flexo, TT	UL M* RoHS
	FM122	Good initial tack. General purpose adhesive for durable goods and nameplate applications.	2.0 0.9 3.2	PET, White TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	OFM03402	Glossy film label with excellent UV resistance and adhesion to a variety of substrates. Good choice for durable goods or lawn and garden applications.	2.0 0.9 3.2	PET, White TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Matte White</i>	7231	Print receptive film accepts most film ink systems and thermal transfer printing. General purpose adhesive for durable goods and nameplate applications.	2.0 0.9 3.2	PET, White MC P1425 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
	7815	Same as 7810 label stock, except #310 adhesive. Firm adhesive that resists oozing.	2.3 0.8 3.2	PET, White TT TC 310 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
	7246	Extreme durability topcoat. Eliminates the need for protective overlaminates in many applications.	2.2 1.8 2.2	PET TT3, Matte White 350 40# Densified Glassine	48" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
	7815FL	Same as 7815 label stock, except polyester liner.	2.3 0.8 1.5	PET, White TT TC 310 Polyester Film	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7874	350 adhesive for performance applications that require thermal transfer printing and demand adhesive performance on difficult to stick to surfaces, e.g. LSE plastics or powder coats.	2.3 1.8 3.2	PET, White TT TC 350 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
Polyester <i>Gloss Clear</i>	7876	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats.	2.0 1.8 3.2	PET, Clear TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
	OFM3102	Durable film offers thermal stability and moisture resistance. Adheres to a variety of surfaces and offers excellent UV resistance.	2.0 0.9 3.2	PET, Clear TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS

* Meets L-T-100B Type 1.

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3M™ Thermal Transfer Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Matte Clear</i>	FM232	Matte film suitable for thin gauge label applications or as a printable overlaminate film. General purpose adhesive for HSE substrates.	1.0 0.8 3.2	PET, Clear TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	Polyester <i>Matte Silver</i>	7247 7818	Extreme durability topcoat. Eliminates the need for protective overlaminates in many applications. Compatible with a wide range of ribbons. Firm adhesive that resists oozing. Excellent durability.	2.3 1.8 2.2 3.3 0.8 3.2	PET TT3, Matte Silver, 350 40# Densified Glassine PET, Silver TT TC 310 55# Densified Kraft	48" 1668' Min. 4.5", 6" 54" 1668' Min. 4.5", 6"	Flexo, TT Flexo, TT
	7879FL	Heavy adhesive coat weight for textured surfaces. Excellent adhesion to LSE plastics and powder coats.	3.3 1.8 1.5	PET, Silver TT TC 350 Polyester Film	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM092	Matte film with gloss top-coating. Adhesive offers good initial tack and excellent die cutting properties. Excellent choice for use in nameplate applications.	2.0 0.9 3.2	PET, Silver TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	OFM2402	Durable, moisture resistant film. Adhesive offers adhesion to a variety of surfaces, including LSE plastics. Designed for use on durable goods in an outdoor environment.	2.0 0.9 3.2	PET, Silver TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
Polyester <i>Bright Silver</i>	7873	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats.	2.0 1.8 3.2	PET, Silver Gloss TC 350 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	OFM2802	Designed for use in outdoor applications. Good adhesion to HSE and LSE plastics.	2.0 0.9 3.2	PET, Bright Silver TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Brushed Silver</i>	FM112	Excellent choice for nameplate applications. Adheres well to metal and HSE plastics.	2.0 0.9 3.2	PET, Brushed Silver TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA
	OFM2902	Durable high performance material with good moisture resistance. Designed for indoor and outdoor applications, with adhesion to a variety of surfaces.	2.0 0.9 3.2	PET, Brushed Silver TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Platinum</i>	7872	Heavy adhesive coat weight for textured surfaces. Excellent adhesion to LSE plastics and powder coats. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 1.8 3.2	PET, Platinum TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	7872FL	Same as 7872 label stock, except with film liner.	2.0 1.8 1.5	PET, Platinum TC 350 Polyester Film	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7875	Durable facestock for harsh environments. Firm adhesive resists oozing. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 0.8 3.2	PET, Platinum TC 310 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	OFM3602	Moisture resistant film paired with tackified acrylic designed for use in lawn and garden applications.	2.0 0.9 3.2	PET, Platinum TC P1400 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS

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3M™ Thermal Transfer Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Vinyl <i>White</i>	FV022902	Soft conformable film with thermal transfer printable top-coat. Excellent choice for drum labeling applications.	3.4 0.8 3.2	Soft White TC6 F2201 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	OFV0202	Designed for use in outdoor applications. Good adhesion to HSE and LSE plastics.	3.4 0.9 3.2	Soft White TC6 P1400 50# SC	54" 1668' Min. 6"	Flexo, TT	UL RoHS
Vinyl <i>Clear</i>	FV01462	Thermal transfer printable clear vinyl.	4.0 0.9 3.2	Soft Clear TC6 P1212 50# SC	54" x 1668' Min.	Flexo, TT	RoHS
Vinyl <i>Cast</i>	3690E	Durable coat film flexible and conformable. Outstanding weathering properties. Non-transferable on some surfaces.	2.0 1.0 3.2	Bright White NTC 320 90 g / sm glassine	48" 1620' Min.	TT	UL CSA RoHS
	3698E	Same as 3690E except in matte silver. Outstanding weathering properties. Non-transferable on some surfaces.	2.0 1.0 3.2	Matte Silver NTC 320 90 g / sm glassine	48" 1620' Min.	TT	UL CSA RoHS
Retro-reflective	3929	When bar code printed, the facestock extends the maximum scanning distance of long range scanners. Excellent for bin labels or shelf markers.	4.8 1.0 4.6	Silver Gloss TC 200 78# Clay Coated Kraft	40" 3000' Min. 6" x 450'	Flexo, TT	RoHS
Polypropylene <i>White</i>	7776	Light duty facestock with firm adhesive that resists oozing.	2.6 0.8 3.2	PP, Label-Lyte™ T2S 310 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7777	Corona treated. Bright white facestock offers high opacity. Film stiffness allows for easy die cutting and dispensing for automatic applications. Can be thermal transfer printed with resin ribbon.	2.6 0.9 3.2	PP, Label-Lyte™ T2S Permanent Acrylic 50# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7779	Same as 7777 except with 350 adhesive. Excellent adhesion to powder coats and LSE plastics.	2.6 1.1 3.2	PP, Label-Lyte™ T2S 350 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
Acrylate	3921	Offers ultra-high temperature performance. Thermal transfer printable	2.0 1.0 3.0	Matte White Acrylate 150 55# Densified Kraft	48" 1668' Min. 6"	TT	UL CSA RoHS
Polyimide <i>White</i>	7812	Offers ultra-high temperature performance. Easy readability of bar codes. Thermal transfer printable.	3.0 2.0 3.2	Kapton™, Matte White 100 50# Densified Kraft	12" x 1000' 6" x 500	TT	UL CSA RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Gloss White</i>	7220SA	Gloss finish, adhesive allows trapped air to release to prevent bubbling, chemical resistant, good for powder coated surfaces, slightly oily metals, high performance adhesive.	2.0 1.1 6.8	PET, White TC 350 90# Polycoated Kraft	Sheet 20" x 27" Roll 54" x 750"	Screen Flexo	RoHS
	7331/7860	High abrasion and solvent resistance. Good for indoor and outdoor use. Excellent bond to LSE plastics.	2.0 0.8 3.2	PET, White TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7331FL	Same as 7331 label stock with film liner for automatic application equipment.	2.0 0.8 1.5	PET, White TC 300 Polyester Film	54" 1668' Min.	Flexo, TT	CSA RoHS
	7830/7864	Good abrasion and chemical resistance. Thin label profile provides good performance on small diameter packages. Excellent cold temperature performance.	1.0 0.8 3.2	PET, White TC 400 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7816	Offers excellent durability. Film adhesive that resists oozing. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 0.8 3.2	PET, White TC 310 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	7871	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 1.8 3.2	PET, White TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	FM033202	Chemical resistant film paired with adhesive designed for use in automotive applications. Excellent thermal stability.	2.0 1.3 3.2	PET, White TC P1650 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM041902	Durable film facestock with aggressive, high tack adhesive. Good adhesion to powder coats and textured surfaces.	2.0 1.2 3.2	PET, White TC P1480 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM122	Good initial tack. General purpose adhesive for durable goods and nameplate applications.	2.0 0.9 3.2	PET, White TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM282	Thinner version of FM122. Suitable for slightly curved surfaces.	1.0 0.8 3.2	PET, White TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM53R2	Rubber-based adhesive with high adhesion to LSE plastics or waxy surfaces.	2.0 1.3 3.2	PET, White TC P1110 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	OFM03402	Glossy film label with excellent UV resistance and adhesion to a variety of substrates. Good choice for durable goods or lawn and garden applications.	2.0 0.9 3.2	PET, White TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Matte White</i>	7231	Print receptive film accepts most film ink systems and thermal transfer printing. General purpose adhesive for durable goods and nameplate applications.	2.0 0.9 3.2	PET, White MC P1425 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
	7810	Features ultra smooth top-coat. Ideal for bar code applications. Good durability with a wide range of ribbons.	2.3 0.8 3.2	PET, White TT TC 300 50# SC	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7815	Same as 7810 label stock, except #310 adhesive. Firm adhesive that resists oozing.	2.3 0.8 3.2	PET, White TT TC 310 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
	7874	350 adhesive for performance applications that require thermal transfer printing and demand adhesive performance on difficult to stick to surfaces, e.g. LSE plastics or powder coats.	2.3 1.8 3.2	PET, White TT TC 350 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM034602	Micro-cavitated film with print receptive coating for use with most film inks systems and thermal transfer printing. Designed for use in automotive applications. Excellent thermal stability.	2.0 1.3 3.2	PET, White MC P1650 50# SC	54" 1668' Min.	Flexo, TT, Laser	RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Gloss Clear</i>	7350/7861	Offers high abrasion and solvent resistance. Excellent adhesion to LSE plastics. Ideal for indoor and outdoor applications.	2.0 0.8 3.2	PET, Clear TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7350FL	Same as 7350 label stock with film liner for automatic application equipment.	2.0 0.8 1.5	PET, Clear TC 300 Polyester Film	54" 1668' Min.	Flexo, TT	CSA RoHS
	7740	Excellent adhesion to LSE plastics. Excellent flag resistance on small diameter vials. Excellent abrasion resistance and good chemical resistance.	1.5 0.8 3.2	PET, Clear TC 320 55# Densified Kraft	54" 1668' Min.	Flexo, TT	RoHS
	7753	Excellent clarity of both facestock and adhesive. Ideal for replacing directly imaged containers. Ideal for pharmaceutical and cosmetic applications.	1.5 0.8 1.5	PET, Clear TC 400 Polyester Film	54" 1668' Min.	Flexo, TT	UL RoHS
	7831	Thin label profile provides good performance on small diameter packages. Excellent cold temperature performance.	1.0 0.8 3.2	PET, Clear TC 400 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7876	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats.	2.0 1.8 3.2	PET, Clear TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
	FM042	High clarity general purpose adhesive with good initial tack and excellent die cutting properties. Adhesion to metals and HSE plastics.	2.0 0.9 3.2	PET, Clear TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	OFM3102	Durable film offers thermal stability and moisture resistance. Adheres to a variety of surfaces and offers excellent UV resistance.	2.0 0.9 3.2	PET, Clear TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Matte Silver</i>	7222/7865	Offers high abrasion and chemical resistance. Excellent "quick stick" and bond to LSE plastics. Uses include instruction and schematic panels.	2.0 0.8 3.2	PET, Silver TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7813	Ultra-smooth matte top-coat. Excellent durability with a wide variety of ribbons. Excellent adhesion to LSE plastics.	3.3 0.8 3.2	PET, Silver TT TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	FM043702	Thermal transfer printable top-coating. Designed for use in demanding environments including automotive underhood applications.	2.0 1.3 3.2	PET, Silver TC P1650 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM047202	Metallized film offers excellent thermal stability and moisture resistance. High performance adhesive ideal for demanding applications, including powder coated paints.	2.0 1.2 3.2	PET, Silver TC P1480 50# SC	54" 1668' Min.	Flexo, TT"	RoHS
	OFM2402	Durable, moisture resistant film. Adhesive offers adhesion to a variety of surfaces, including LSE plastics. Designed for use on durable goods in an outdoor environment.	2.0 0.9 3.2	PET, Silver TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Bright Silver</i>	7323/7863	Excellent abrasion and chemical resistance. Excellent adhesion to LSE plastics.	2.0 0.8 3.2	PET, Silver Gloss TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7873	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats.	2.0 1.8 3.2	PET, Silver Gloss TC 350 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM047302	Good thermal stability. Excellent adhesion to textured surfaces and powder coated paints.	2.0 1.2 3.2	PET, Bright Silver TC P1480 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM052	Good choice where a thinner profile label is required.	1.0 0.8 3.2	PET, Bright Silver TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM062	General purpose adhesive. Excellent die cutting properties.	2.0 0.9 3.2	PET, Bright Silver TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FM1172	High tack rubber-based adhesive. Good adhesion to waxy surfaces.	2.0 1.2 3.2	PET, Bright Silver TC P1110 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM912	Thicker version of FM1172 for use where more rigidity is required.	3.0 0.9 3.2	PET, Bright Silver TC P1212 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	OFM2802	Designed for use in outdoor applications. Good adhesion to HSE and LSE plastics.	2.0 0.9 3.2	PET, Bright Silver TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Brushed Silver</i>	7214SA	Gloss finish, adhesive allows trapped air to release to prevent bubbling, chemical resistant, good for powder coated surfaces, slightly oily metals, high performance adhesive. Brushed silver finish.	2.0 1.1 6.8	PET, Brushed Silver TC 350 90# Polycoated Kraft	Sheet 20" x 27" Roll 54" x 750"	Flexo	RoHS
	FM046202	Aggressive, high tack adhesive. Designed for adhesion to difficult surfaces.	2.0 1.2 3.2	PET, Brushed Silver TC P1480 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM102	Durable high performance material with good moisture resistance. Designed for indoor and outdoor applications, with adhesion to a variety of surfaces.	1.0 0.8 3.2	PET, Brushed Silver TC P1212 50# SC	54" 1668' Min.	Flexo, TT	UL CSA
	OFM2902	Durable high performance material with good moisture resistance. Designed for indoor and outdoor applications, with adhesion to a variety of surfaces.	2.0 0.9 3.2	PET, Brushed Silver TC P1400 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	UL RoHS
Polyester <i>Platinum</i>	7872	Heavy adhesive coat weight for textured surfaces. Excellent adhesion to LSE plastics and powder coats. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 1.8 3.2	PET, Platinum TC 350 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	7875	Durable facestock for harsh environments. Firm adhesive resists oozing. Precision Roll Program – custom slit rolls as small as 2.5" x 1668', as wide as 54", and with up to one splice.	2.0 0.8 3.2	PET, Platinum TC 310 55# Densified Kraft	54" 1668' Min. 4.5", 6" Precision	Flexo, TT	UL CSA RoHS
	OFM3602	Moisture resistant film paired with tackified acrylic designed for use in lawn and garden applications.	2.0 0.9 3.2	PET, Platinum TC P1400 50# SC	54" 1668' Min.	Flexo, TT	UL RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Vinyl White	7051SA	Extended life, white finish, adhesive allows trapped air to release to prevent bubbles, good for powder coated surfaces, high performance adhesive.	3.8 1.1 6.8	Soft White EL Vinyl NT 350 90# Polycoated Kraft	Sheet 20" x 27" Roll 54" x 750"	Flexo	RoHS
	7604FP	Top-coated, conformable to contoured surfaces. Consistent, high-speed dispensing. Excellent squeeze bottle performance.	3.5 1.2 3.2	Soft White TC3 300 55# Densified Kraft	54" 1668' Min.	Flexo	RoHS
	7605	Conformable to contoured surfaces. Excellent adhesion to LSE plastics and textured powder coats.	3.4 1.8 3.2	Soft White NTC 350 55# Densified Kraft	54" 1668' Min.	Flexo	RoHS
	7890	Can be used on rigid and semi-rigid containers. Excellent for general purpose labeling such as drum labels.	3.5 1.1 3.2	Rigid White Gloss TC 300 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL RoHS
	FV0216R2	High performance adhesive ideal for demanding applications, including powder coated paints. Excellent choice for machinery label applications.	3.4 1.2 3.2	Soft White NTC P1480 50# SC	54" 1668' Min.	Flexo	RoHS
	FV022702	Soft conformable film offers durability and moisture resistance. High performance adhesive ideal for demanding applications, including powder coated paints.	3.4 1.2 3.2	Soft White TC6 P1480 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FV023202	High initial tack adhesive with good moisture resistance. Performs well in ladder label applications.	3.4 1.2 3.2	Soft White TC3 P1480 50# SC	54" 1668' Min.	Flexo	RoHS
	FV025102	High performance adhesive ideal for demanding applications, including powder coated paints.	6.0 1.2 3.2	Semi-rigid TC3 P1480 50# SC	54" 1668' Min.	Flexo	RoHS
	FV032	Soft conformable vinyl that offers durability and moisture resistance. General purpose adhesive.	3.4 0.9 3.2	Soft White TC3 P1212 50# SC	54" 1668' Min. 6"	Flexo	UL RoHS
	FV052	High initial tack adhesive. Good choice for retread tire label applications.	3.4 1.3 3.2	Soft White TC2 P1110 50# SC	54" 1668' Min.	Flexo	RoHS
	FV100K	Similar to FV02410K except with a freezer grade adhesive. Suitable for drum labeling applications.	3.4 0.8 5.9	Soft White EDP F2201 83# Laser	54" 5000' Min.	Flexo, TT, DMI, Laser	RoHS
	FV102	Non top-coated semi rigid white vinyl label product offers excellent moisture resistance paired with a general purposed adhesive.	3.4 0.9 3.2	Semi-rigid NTC P1212 50# SC	54" 1668' Min.	Flexo	RoHS
	FV122	Semi rigid white vinyl label product that had been top-coated to accept a variety of flexo film and UV rotary letterpress inks. General purpose adhesive.	3.4 0.9 3.2	Semi-rigid TC3 P1212 50# SC	54" 1668' Min.	Flexo	RoHS
	FV252	Freezer grade adhesive offers high initial tack and good clarity. Offers adhesion when applied at temperatures as low as 0° F.	3.4 0.8 3.2	Soft White TC3 F2201 50# SC	54" 1668' Min.	Flexo	RoHS
	FV292	Adheres to a variety of surfaces including polyolefins. Excellent choice for wire marking applications.	3.4 0.9 3.2	Soft White TC3 P1410 50# SC	54" 1668' Min.	Flexo	RoHS
	OFV0202	Designed for use in outdoor applications. Good adhesion to HSE and LSE plastics.	3.4 0.9 3.2	Soft White TC6 P1400 50# SC	54" 1668' Min. 6"	Flexo, TT	UL RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Vinyl <i>Clear</i>	FV01462	Thermal transfer printable clear vinyl.	4.0 0.9 3.2	Soft Clear TC6 P1212 50# SC	54" x 1668' Min.	Flexo, TT	RoHS
	FV018702	Firm clear vinyl label product offers excellent moisture resistance.	4.0 0.9 3.2	Rigid Clear NTC P1212 50# SC	54" x 1668' Min.	Flexo	RoHS
	FV172	Soft conformable translucent vinyl that has been topcoated for water-based flexo inks. High clarity general purpose adhesive.	3.4 0.9 3.2	Soft Translucent TC1 P1212 50# SC	54" x 1668' Min.	Flexo	RoHS
	FV612	Non top-coated vinyl is suitable for wire marking applications.	3.4 0.9 3.2	Soft Translucent NTC P1410 50# SC	54" 1668' Min.	Flexo	RoHS
Vinyl <i>Yellow</i>	FV232	Top-coated version of FV362 for press printing.	3.4 0.9 3.2	Soft Vinyl TC2 P1212 50# SC	54" 1668' Min.	Flexo	
	FV362	Non top-coated conformable yellow vinyl with a general purpose adhesive.	3.4 0.9 3.2	Soft Vinyl NTC P1212 50# SC	54" 1668' Min.	Flexo	
Polypropylene <i>White</i>	7776	Light duty facestock with firm adhesive that resists oozing.	2.6 0.8 3.2	PP, Label-Lyte™ T2S 310 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7777	Corona treated. Bright white facestock offers high opacity. Film stiffness allows for easy die cutting and dispensing for automatic applications. Can be thermal transfer printed with resin ribbon.	2.6 0.9 3.2	PP, Label-Lyte™ T2S Permanent Acrylic 50# Densified Kraft	54" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
	7779	Same as 7777 except with 350 adhesive. Excellent adhesion to powder coats and LSE plastics.	2.6 1.1 3.2	PP, Label-Lyte™ T2S 350 55# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	FP012602	Press printable stock with good initial tack and excellent die cutting properties. Adhesion to HSE substrates.	2.3 0.9 3.2	PP, TC2S P1212 50# SC	54" 1668' Min. 6"	Flexo	RoHS
	FP016102	Conformable moisture resistant film. Freezer grade adhesive that can be applied at temperatures as low as 0° F.	2.3 0.8 3.2	PP, TC2S F2201 50# SC	54" 1668' Min.	Flexo	RoHS
	FP018802	Bright white facestock with high opacity. Thermal transfer printable. Good adhesion to glass and metal.	2.6 0.9 3.2	PP, Label-Lyte™ T2S P1212 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FP022102	High performance adhesive designed for demanding LSE substrates. Matte film.	3.0 1.2 3.2	PP, EDP P1480 50# SC	54" 1668' Min. 6"	Flexo	RoHS
	FP022202	High performance adhesive ideal for demanding applications, including powder coated paints.	2.3 1.2 3.2	PP, TC2S P1480 50# SC	54" 1668' Min.	Flexo	RoHS
	FP027402	High tack rubber-based adhesive. Good adhesion to waxy surfaces. Excellent choice for candle pad label applications or carpet backing labels.	3.0 1.3 3.2	PP, EDP C1S P1110 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FP032002	High performance adhesive ideal for demanding applications, including powder coated paints. Excellent choice for machinery label applications, with adhesive designed for adhesion to smooth HSE and LSE substrates.	3.0 0.9 3.2	PP, EDP C1S P1400 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FP032302	White opaque adhesive paired with metallized film offers exceptional opacity.	2.3 1.1 3.2	PP, Metallized TC P1655 50# SC	54" 1668' Min.	Flexo	RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polypropylene <i>Clear</i>	FP011	High clarity adhesive. Suitable for overlaminating applications or thin profile label applications. Corona treated film for press printing applications.	1.2 0.8 2.5	PP, Clear T1S P1212 40# SC	54" 1668' Min.	Flexo	RoHS
	FP029502	Matte version of FP011.	2.0 0.9 3.2	PP, Matte Clear T2S P1212 50# SC	54" 1668' Min.	Flexo	RoHS
	FP082	Durable moisture resistant film offers excellent conformability. Top-coated to accept flexographic film inks.	2.0 0.9 3.2	PP, Clear TC P1212 50# SC	54" 1668' Min.	Flexo	RoHS
	FP092	Freezer grade adhesive. Adhesive dry ingredients are listed by FDA as indirect food contact additives when used in food packaging with minimum opportunity for exposure. See 21 CFR 175.105.	2.0 0.8 3.2	PP, Clear TC F2201 50# SC	54" 1668' Min.	Flexo	RoHS
	FP102	General purpose adhesive offers excellent adhesion to a wide variety of substrates, including polyolefins.	2.0 0.9 3.2	PP, Clear TC P1410 50# SC	54" 1668' Min.	Flexo	RoHS
Polypropylene <i>Silver</i>	FPM000902	Bright silver conformable film with adhesive designed to adhere to multiple surfaces. Excellent choice for candle label applications.	2.0 0.9 3.2	PP, Silver TC P1212 50# SC	54" 1668' Min.	Flexo	RoHS
Polystyrene	FS022	Hard rigid film that offers excellent moisture resistance. High clarity general purpose adhesive. Good for candle top applications.	3.0 0.9 3.2	Clear Polystyrene P1212 50# SC	54" 1668' Min.	Flexo	RoHS
	FS152	Rigid film offers exhibits good dispensing properties. Good adhesion to smooth LSE substrates and folded cartons.	2.5 0.9 3.2	White Polystyrene P1410 50# SC	54" 1668' Min.	Flexo	RoHS
	FS242	High initial tack rubber-based adhesive. Adheres to waxy surfaces and rubber hoses.	2.5 1.2 3.2	White Polystyrene P1110 50# SC	54" 1668' Min.	Flexo	RoHS
	FS442	Matte clear durable hard rigid film that offers excellent moisture resistance. Good adhesion to metals, glass and HSE plastics.	2.0 0.9 3.2	Matte Polystyrene P1212 50# SC	54" 1668' Min.	Flexo	RoHS
Polyethylene <i>White</i>	FPE05102	Biaxially oriented film that is compatible with a variety of print methods. General purpose adhesive designed to adhere to both smooth LSE and HSE surfaces.	3.8 0.9 3.2	Matte Polyart™ TC P1425 50# SC	54" x 1668' Min.	Flexo, TT, DMI	RoHS
	FPE0570N	Offers excellent durability, conformability and moisture resistance. Conforms for use with blood bags.	4.0 1.1 1.5	Gloss White P1650 Clear PET	54" x 1668' Min.	Flexo, TT,	RoHS
Acetate	7710	High clarity and wet out for the "no label" look. Good aging, excellent dispensability and die cutting. Recommended for indoor applications.	3.0 0.8 2.5	Clear Acetate 400 43# Densified Kraft	48" 1668' Min.	Flexo	RoHS
	FA012	High clarity general purpose adhesive. Designed for high-speed die cutting and matrix stripping.	2.0 0.9 3.2	Clear Acetate P1212 50# SC	48" 1668' Min.	Flexo	RoHS
	FA032	Matte high-quality film offers excellent dispensability. Die cuts easily to extend die life.	2.0 0.9 3.2	Matte Clear Acetate P1212 50# SC	48" 1668' Min.	Flexo	RoHS

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3M™ Press Printable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Acrylic	FAC00102	Clear acrylic film. General purpose adhesive with minimal cold flow. Durable overlaminate.	2.0 0.8 3.2	Clear acrylic P1212 50# SC	54" 1668' Min.	Flexo	UL CSA RoHS
Paper White	7000	High-gloss for fine printing. Adheres well to curved surfaces.	4.0 0.9 2.5	60# White High Gloss 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7000FL	Same as 7000 with film liner.	4.0 0.9 1.5	60# White High Gloss 320 Polyester Film	54" 1668' Min.	Flexo	RoHS
	7002	Facestock provides excellent graphic reproductions. Excellent flag resistance on small diameter vials.	4.0 0.9 2.5	60# Bright White High Gloss 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7004	Excellent quick stick and adhesion to low surface energy plastics.	2.8 0.9 2.5	60# Bright White High Gloss 300 43# Densified Kraft	54" 1668' Min. 6"	Flexo	RoHS
Polyolefin White	7291	Smudge-proof top coat. Good for general purpose applications. Can be printed by dot-matrix, thermal transfer, and ion deposition.	3.7 0.9 3.2	Smudge-proof TC Kimdura™ P1400 50# Densified Kraft	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7841	Excellent toner anchorage. Good conformability. Good print contrast when bar coding.	7.0 0.8 3.2	Matte White Teslin™ 310 55# Densified Kraft	54" 1668' Min.	Flexo, Laser	UL CSA RoHS
Litho White	7014	Excellent flag resistance to small diameter vials.	1.9 0.9 2.5	40# Coated Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7109	Ideal to adhere to wet or damp surfaces. Meets TAPPI #213 spec for repulpability. Not recommended for use with water-based inks.	3.1 0.9 2.5	60# Coated Paper 1100 43# Densified Kraft	13-1/2" x 2500' Min.	Flexo	RoHS
	7113	Ideal for data-processing applications. Can be cleanly removed and repositioned on most surfaces.	4.0 0.4 3.2	46# Uncoated Paper 1000 50# Densified Kraft	48" 1668' Min.	Flexo	RoHS
	7142	Good thermal transfer printable facestock. Can be removed cleanly or repositioned on most substrates.	3.5 0.4 2.5	55# Coated Paper 1000 40# Kraft Glassine	48" 1668' Min. 6"	Flexo, TT	RoHS
Litho Tamper- Indicating White	7011	Excellent flag resistance on small diameter vials. Used for unit dose pharmaceutical packages.	2.3 0.9 2.5	32# Coated Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7110	Readily fractures or delaminates. Ideal for tamper-resistant labeling. Provides write-on capability.	2.8 1.1 2.5	40# Uncoated Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
Saturated Latex Impregnated White	7120	Conforms to curved surfaces. Resists staining and moisture. Adheres to many textured surfaces.	3.5 1.3 2.5	60# Semi-gloss White Paper 400 43# Densified Kraft	54" 1668' Min.	Flexo	RoHS

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3M™ Dot Matrix Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Matte White</i>	7480	Fast dry top-coat for printing of large bar codes or alphanumeric symbols.	2.3 0.8 4.6	PET, White Laser TC 300 78# Clay Coated Kraft	54" 1668' Min.	Flexo, DMI	UL CSA RoHS
	7840	Matte top-coat offers excellent ink anchorage for various electronic printing technologies. Firm adhesive that resists oozing.	2.3 0.8 3.2	PET, White DMI TC 310 55# Densified Kraft	54" 1668' Min.	Flexo, DMI	UL CSA RoHS
	7880	Matte top-coat resists scuffing, chemicals and moisture. Excellent adhesion to LSE plastics. Liner perforates and fan-folds easily.	2.3 0.8 3.2	PET, White DMI TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	7880HL	Heavy liner version of 7880 label stock for excellent liner stability in high humidity.	2.3 0.8 4.6	PET, White Laser TC 300 78# Clay Coated Kraft	54" 1668' Min.	Flexo, DMI	UL CSA RoHS
	FM162	Computer imprintable film that also accepts thermal transfer print. Adheres well to metals and HSE plastics.	2.0 0.9 3.2	PET, White EDP P1212 50# SC	54" 1668' Min.	Flexo, TT, DMI	UL RoHS
	OFM2502	Absorbent matte coated for a variety of electronic print technologies. Good adhesion to both HSE and LSE plastics.	2.0 0.9 3.2	PET, White EDP P1400 50# SC	54" 1668' Min.	Flexo, TT, DMI	UL RoHS
Polyester <i>Matte Clear</i>	7745FL	Dot-matrix imprintable matte top-coat. Ideal where variable information is needed.	1.3 0.8 1.5	PET, Clear DMI TC 400 Polyester Film	54" 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	7881	Matte top-coat provides good chemical and abrasion resistance. Excellent adhesion to LSE plastics.	2.3 0.8 3.2	PET, Clear DMI TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	FM142	Absorbent matte coated for a variety of electronic print technologies. General purpose adhesive for HSE substrates.	2.0 0.9 3.2	PET, Clear EDP P1212 50# SC	54" 1668' Min.	Flexo, TT, DMI	UL RoHS
Polyester <i>Matte Silver</i>	7853HL	Excellent for textured surfaces. High-temperature adhesive.	3.3 3.5 4.6	PET, Silver DMI TC 200 78# Clay Coated Kraft	54" 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	7883	Matte top-coat resists scuffing, chemicals, and moisture. Excellent adhesion to LSE plastics. Liner can be perforated and fan-folded easily.	3.3 0.8 3.2	PET, Silver DMI TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	7883HL	Heavy liner version of 7883 label stock for excellent liner stability in high humidity.	3.3 0.8 4.6	PET, Silver DMI TC 300 78# Clay Coated Kraft	54" 1668' Min.	Flexo, DMI	UL CSA RoHS
	7887	Same as 7883 label stock except thinner facestock.	2.3 0.8 3.2	PET, Silver DMI TC 300 55# Densified Kraft	54" 1668' Min.	Flexo, DMI	UL CSA RoHS
	7897	Firm adhesive resists oozing. Liner perforates and fan-folds easily.	2.3 0.8 3.2	PET, Silver DMI TC 310 55# Densified Kraft	54" 1668' Min.	Flexo, DMI	UL CSA RoHS

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3M™ Dot Matrix Label Materials (cont.)

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Bright Silver</i>	FM043302	Excellent adhesion to textured surfaces and powder coated paints.	2.0 1.2 3.2	PET, Bright Silver EDP P1480 50# SC	54" 1668' Min.	Flexo, TT DMI	RoHS
	FM152	Bright metallized film with a matte absorbent top-coating designed for computer imprinting applications. Excellent adhesion to HSE substrates.	2.0 0.9 3.2	PET, Bright Silver EDP P1212 50# SC	54" 1668' Min.	Flexo, TT DMI	UL RoHS
Vinyl <i>White</i>	FV062	Semi-rigid vinyl coated with an absorbent matte top-coating designed for computer imprinting applications.	3.4 0.9 3.2	Semi-rigid EDP P1212 50# SC	54" 1668' Min.	Flexo, TT, DMI	UL RoHS
	FV1052	8.0 mil version of FV062. Designed for use in membership card applications.	8.0 0.9 3.2	Rigid EDP P1212 50# SC	54" 5000' Min.	Flexo, TT, DMI	RoHS
	FV512	Same film as FV062 with an adhesive designed to adhere to a variety of surfaces, including polyolefins.	3.4 0.9 3.2	Semi-rigid EDP P1410 50# SC	54" 1668' Min.	Flexo, TT, DMI	RoHS
Polypropylene <i>White</i>	FP010402	Matte top-coating is designed for compatibility with a variety of film ink systems. Film stiffness allows for easy die cutting and dispensing.	2.8 0.9 3.2	PP, Label-Lyte™ EDP P1212 50# SC	54" 1668' Min.	Flexo, TT, DMI	RoHS
	FP024102	Freezer grade adhesive that can be applied at temperatures as low as 0° F. Suitable for frozen food or drum label applications.	3.0 0.8 3.2	PP, EDP C1S F2201 50# SC	54" 1668' Min.	Flexo, TT, DMI	RoHS
Polyimide <i>White</i>	7811	Offers ultra-high temperature performance. Easy readability of variable information and bar codes.	2.0 2.0 3.0	Matte Kapton™ TC 100 50# Densified Kraft	12" 1000' 6" x 500	DMI	UL CSA RoHS

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3M™ Digital Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Paper	PS016402	Ink jet printable label stock. Good adhesion to many substrates.	4.0 0.9 3.2	Matte Ink Jet Permanent Acrylic 50# Clay Coated Kraft	60" 1668' min.	Ink Jet	
Polyester <i>Matte White</i>	7840HL	Matte top-coat offers excellent ink anchorage for various electronic printing technologies. Firm adhesive that resists oozing. Clay-coated liner.	2.3 0.8 4.6	PET, White Laser TC 310 78# Clay Coated Kraft	54" 1668' Min.	Flexo, Laser	UL CSA RoHS
	7850HL	Matte top-coat offers excellent ink anchorage for laser toner and dot-matrix. Excellent high temperature performance especially to LSE plastics and smooth powder coats.	2.3 1.1 4.6	PET, White Laser TC 350 78# Clay Coated Kraft	54" 1668' Min.	Flexo, Laser	UL CSA RoHS
	7852HL	Excellent for textured surfaces. Used for asset labels. High-temperature adhesive.	2.3 2.0 4.6	PET, White Laser TC 200 78# Clay Coated Kraft	54" 1668' Min.	Flexo, DMI	UL RoHS
	FM01961K	Adhesive can be applied at temperatures as low as 0 F. Liner has special surface finish on the back side to enhance feed and reduce static problems. Excellent for drum labeling applications.	2.0 0.8 5.9	PET, White MC F2201 83# Laser	54" 5000' Min. 9"	Flexo, TT, Laser	RoHS
	FM031902	Print receptive film accepts most film ink systems and thermal transfer printing. Excellent for temporary membership card applications. Film is also laser printable.	5.0 0.9 3.2	PET, White MC P1212 50# SC	54" 5000' Min.	Flexo, TT, Laser	RoHS
Polyester <i>Gloss Clear</i>	FM02511K	Durable film with clear laser topcoat. Adheres to a variety of substrates. Offers excellent UV resistance. Liner designed for lay-flat through laser applications.	2.0 0.9 5.9	PET, Clear Laser TC P1400 83# Laser	54" 1668' Min.	Flexo, TT, Laser	RoHS
Polyester <i>Matte Clear</i>	7845HL	Matte top-coat provides good chemical and abrasion resistance. Excellent adhesion to HSE plastics and metals.	1.3 0.8 4.6	PET, Clear Laser TC 310 78# Clay Coated Kraft	54" 1668' Min.	Flexo, Laser	UL RoHS
	FM02090K	Translucent matte coated for a variety of electronic print technologies. Liner has a special surface finish on the back side to enhance feed and reduce static problems.	2.0 0.8 5.9	PET, Translucent EDP P1212 83# Laser	54" 5000' Min.	Flexo, TT, Laser	RoHS
	FM14K	Matte coated for a variety of electronic print technologies. Liner has a special surface finish on the back side to enhance feed and reduce static problems.	2.0 0.8 5.9	PET, Clear EDP P1212 83# Laser	54" 5000' Min.	Flexo, TT, Laser	UL RoHS
	FM1681	Translucent matte coated for a variety of electronic print technologies. Excellent for use as a laser printable overlaminates.	2.0 0.8 2.5	PET, Translucent EDP P1212 40# SC	54" 1668' Min.	Flexo, TT, Laser	RoHS
Vinyl <i>White</i>	FV02410K	Top-coated for laser printing applications. Liner has a special surface finish on the back side to enhance feed and reduce static problems.	3.4 0.9 5.9	Soft White EDP P1425 83# Laser	54" 5000' Min.	Flexo, TT, DMI, Laser	RoHS
	FV100K	Similar to FV02410K except with a freezer grade adhesive. Suitable for drum labeling applications.	3.4 0.8 5.9	Soft White EDP F2201 83# Laser	54" 5000' Min.	Flexo, TT, DMI, Laser	RoHS
Acrylate	7847	Excellent temperature, chemical, and environmental resistance. Two-layered film construction provides excellent long-term performance. Excellent adhesion to LSE plastics. Brittle facestock provides destructibility on some substrates.	2.4 1.2 3.2	Matte Black/White 350 65# Densified Kraft	48" 984' 3.5", 4.75"	Laser Etch	UL CSA RoHS
	7848	Same as 7847 label stock, except with matte silver/black facestock.	2.4 1.2 3.2	Matte Silver/White 350 65# Densified Kraft	48" 984'	Laser Etch	UL CSA RoHS

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3M™ Removable Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>White</i>	FM01972	Matte film that offers thermal stability. Suitable for masking applications.	2.0 0.8 3.2	PET, White MC R3500 50# SC	54" 1668' Min.	Flexo, TT	RoHS
	FM1732R	Thermal transfer printable with resin ribbons. Removable from a variety of surfaces.	2.0 0.8 3.2	PET, White TC R3500 50# SC	54" 1668' Min.	Flexo, TT	RoHS
Vinyl <i>White</i>	7600	Top-coated, high bond, but offers clean removability on most surfaces for up to one year. Excellent for plasticizer resistance.	3.5 1.0 2.5	Soft White Gloss TC 500 43# Densified Kraft	54" 1668' Min. 6"	Flexo	RoHS
	FV010002	Ultra removable adhesive. Static cling alternative.	3.4 0.8 3.2	Soft White Vinyl TC3 R3800 50# SC	54" 1668' Min.	Flexo	RoHS
	FV1222	Soft conformable vinyl that offers long term adhesion with clean removability.	3.4 0.8 3.2	Soft White Vinyl TC3 R3500 50# SC	54" 1668' Min.	Flexo	RoHS
Vinyl <i>Clear</i>	FV016402	Top-coated vinyl is an excellent alternative to static cling. Designed for high-speed die cutting and matrix stripping.	4.0 0.8 3.2	Soft Clear Vinyl TC6 R3500 50# SC	54" x 1668' Min.	Flexo, TT	RoHS
	FV1102	Soft conformable vinyl has a frosty clear appearance.	3.4 0.8 3.2	Soft Translucent TC1 R3500 50# SC	54" 1668' Min.	Flexo	RoHS
Vinyl <i>Static cling</i>	FVS110S	Highly plasticized vinyl label material that adheres to most clean smooth surfaces without the use of pressure sensitive adhesives.	7.5 3.4	Clear Vinyl TC6 None 60# Gloss	54" 1668' Min.	Flexo, TT	RoHS
	FVS12S	White version of FVS110S. Utilizes a non-silicone coated liner specially designed for static cling vinyl.	7.5 3.4	White Vinyl TC6 None 60# Gloss	54" 1668' Min.	Flexo, TT	RoHS
Polypropylene <i>White</i>	FP011902	Removable adhesive from polyethylene and polypropylene surfaces only.	2.3 0.8 3.2	PP, White TC2S RMR10 50# SC	54" 1668' Min.	Flexo	RoHS
	FP016902	Good conformability. Good removability from a variety of surfaces. Excellent alternative to static cling.	2.3 0.8 3.2	PP, White TC2S R3500 50# SC	54" 1668' Min. 6"	Flexo	RoHS
	FP024502	Glossy white label paired with adhesive designed to be easily removable from a variety of surfaces with lower peel and tack than R3500 adhesive.	2.3 0.8 3.2	PP, White TC2S R3800 50# SC	54" 1668' Min.	Flexo	RoHS
Polypropylene <i>Clear</i>	FP56N	Clear conformable label offers long term adhesion with clean removability. Excellent alternative to static cling with film liner for high speed dispensing.	2.0 0.8 1.0	PP, Clear TC2S R3500 Clear Polyester	54" 1668' Min.	Flexo	RoHS
	FP024402	Specially formulated adhesive designed to be easily removable from a variety of surfaces. Offers lower peel and tack than R3500 adhesive.	2.0 0.8 3.2	PP, Clear TC2S R3800 50# SC	54" 1668' Min.	Flexo	RoHS
	FP0862	Clear conformable label offers long term adhesion with clean removability. Excellent alternative to static cling.	2.0 0.8 3.2	PP, Clear TC2S R3500 50# SC	54" x 1668' Min. 6"	Flexo	RoHS
Paper <i>White</i>	7113	Ideal for data-processing applications. Can be cleanly removed and repositioned on most surfaces.	4.0 0.4 3.2	46# Uncoated Paper 1000 50# Densified Kraft	48" 1668' Min.	Flexo	RoHS
	7142	Good thermal transfer printable facestock. Can be removed cleanly or repositioned on most substrates.	3.5 0.4 2.5	55# Coated Paper 1000 40# Kraft Glassine	48" 1668' Min. 6"	Flexo, TT	RoHS

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3M™ Tamper Evident Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Destructible Facestocks	7110	Readily fractures or delaminates. Ideal for tamper-resistant labeling. Provides write-on capability.	2.8 1.1 2.5	40# Uncoated White Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	UL * RoHS
	7613T	Resists one-piece removal. Facestock fractures and tears easily. Excellent adhesion to powder coating, LSE plastics, and oily metals.	2.0 0.8 3.2	White Vinyl TC 350 55# Densified Kraft	48" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
	7885	Fragile vinyl facestock destructs easily. Excellent adhesion to metals, HSE plastics, and a variety of paints.	2.2 0.8 3.2	Matte White Vinyl TC 200 50# Densified Kraft	48" 1668' Min. 6"	Flexo, DMI	RoHS
	7930T	Same as 7613, except with 90# polycoated kraft liner.	2.0 0.8 6.7	White Vinyl TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 48" x 750'	Screen, Flexo, TT	UL CSA RoHS
	FA102	Same as FA112 with a white film.	2.0 0.9 3.2	White Acetate P1212 50# SC	48" 1668' Min.	Flexo	RoHS
	FA112	High-quality film resists one piece removal, fractures easily. Good initial tack adhesive.	2.0 0.9 3.2	Clear Acetate P1212 50# SC	48" 1668' Min.	Flexo	UL CSA RoHS
Polyester Tamper Indicating Films	7380	Tamper evident -- VOID. Ideal for security rating plates and certification plates.	2.3 1.0 3.2	Matte White VOID DMI TC 300 55# Densified Kraft	54" 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	7381/7866	Used for closures in packaging of OTC drugs. Facestock resists harsh environments.	2.0 1.0 3.2	Gloss White VOID TC 300 55# Densified Kraft	54" 1668' Min. 4.5", 6"	Flexo, TT	UL CSA RoHS
	7935	Facestock resists harsh environments. Heavy lay-flat liner. Ideal for screen printing.	2.0 0.8 6.7	Gloss White VOID TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL RoHS
	7937	Ideal for security rating plates and certification plates. Heavy lay-flat liner. Ideal for screen printing.	2.3 0.8 6.7	Matte White VOID DMI TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo, DMI	UL RoHS
	FMV01402	Tamper evident with triangle pattern. Alternative to standard VOID labels.	2.0 0.9 2.5	White Triangle TC P1410 50# SC	54" 1668' Min. 4.5" 6"	Flexo, TT	RoHS
	FMV01202	Same as FMV01402 in bright silver finish.	2.0 0.9 2.5	Bright Silver Triangle TC P1410 50# SC	54" 1668' Min. 4.5", 6"	Flexo, TT	RoHS
	FMV02	Thermal transfer printable VOID label. General purpose adhesive offers excellent adhesion to a wide variety of substrates, including polyolefins.	2.0 0.9 2.5	Bright Silver VOID TC P1410 50# SC	54" 1668' Min. 6"	Flexo, TT	RoHS
	FMV22	Same as FMV02 in white finish.	2.0 0.9 2.5	White VOID TC P1410 50# SC	54" 1668' Min.	Flexo, TT	RoHS

* Can be used to display the UL listing mark, but each case must be reviewed and approved by UL follow-up services before use.

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3M™ Health Care Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Paper	7000	High-gloss for fine printing. Adheres well to curved surfaces.	4.0 0.9 2.5	60# White High Gloss 320 43# Densified Kraft	60" 1668' Min. 6"	Flexo	RoHS
	7000FL	Same as 7000 with film liner.	4.0 0.9 1.5	60# White High Gloss 320 Polyester Film	54" 1668' Min.	Flexo	RoHS
	7002	Facestock provides excellent graphic reproductions. Excellent flag resistance on small diameter vials.	4.0 0.9 2.5	60# Bright White High Gloss 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7004	Excellent quick stick and adhesion to low surface energy plastics.	2.8 0.9 2.5	60# Bright White High Gloss 300 43# Densified Kraft	54" 1668' Min.	Flexo	RoHS
Litho White	7014	Excellent flag resistance to small diameter vials.	1.9 0.9 2.5	40# Coated Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7109	Ideal to adhere to wet or damp surfaces. Meets TAPPI #213 spec for repulpability. Not recommended for use with water-based inks.	3.1 0.9 2.5	60# Coated Paper 1100 43# Densified Kraft	13-1/2" x 2500' Min.	Flexo	RoHS
	7113	Ideal for data-processing applications. Can be cleanly removed and repositioned on most surfaces.	4.0 0.4 3.2	46# Uncoated Paper 1000 50# Densified Kraft	48" 1668' Min.	Flexo	RoHS
	7142	Good thermal transfer printable facestock. Can be removed cleanly or repositioned on most substrates.	3.5 0.4 2.5	55# Coated Paper 1000 40# Kraft Glassine	48" 1668' Min.	Flexo, TT	RoHS
Litho Tamper-Indicating White	7110	Readily fractures or delaminates. Ideal for tamper-resistant labeling. Provides write-on capability.	2.8 1.1 2.5	40# Uncoated Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
	7011	Excellent flag resistance on small diameter vials. Used for unit dose pharmaceutical packages.	2.3 0.9 2.5	35# Coated Paper 320 43# Densified Kraft	60" 1668' Min.	Flexo	RoHS
Saturated Latex Impregnated White	7120	Conforms to curved surfaces. Resists staining and moisture. Adheres to many textured surfaces.	3.5 1.3 2.5	60# Semi-gloss White Paper 400 43# Densified Kraft	54" 1668' Min.	Flexo	RoHS
Polyolefin	FP035402	Offers excellent durability, conformability and moisture resistance. Conforms for use with blood bags.	3.3 1.3 3.1	Matte White Polyolefin P1650 50# SC	54" 5000' Min.	Flexo, TT	RoHS
Polyethylene	FPE0570N	Offers excellent durability, conformability and moisture resistance. Conforms for use with blood bags.	4.0 1.3 3.1	Glossy White Polyethylene P1650 50# SC	54" 5000' Min.	Flexo, TT	RoHS
Polypropylene	PB009150	High performance piggyback construction that offers excellent surface conformability required or blood bag tracking label applications.	2.8 0.9 2.0 1.3 3.1	Matte White PP, EDP P1212 Clear PP Liner P1650 50# SC	54" 10,000' Min.	Flexo, TT	RoHS

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3M™ Sheet Label Materials (*Standard Sheet Size 20 x 27 Packed 200 per box*)

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Vinyl White	7043	Specially top-coated vinyl for UV curable screen inks. Good general purpose adhesive for a variety of surfaces.	3.2 0.9 6.8	Soft White Vinyl TC9 P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	UL RoHS
	7044	Same vinyl as 7043, paired with aggressive adhesive for difficult substrates.	3.2 1.1 6.8	Soft White Vinyl TC9 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	UL RoHS
	7045	Non top-coated film with good conformability. Excellent choice for curved surfaces	3.2 0.9 6.8	Soft White Vinyl NTC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	UL RoHS
	7046	Flexible film, ideal for screen printing with solvent ink systems.	3.2 1.1 6.8	Soft White Vinyl NTC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	UL RoHS
	7048	Up to 5 year extended life vinyl. Topcoated for UV inks. High performance adhesive.	3.8 1.1 6.8	Soft White EL Vinyl TC9 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	RoHS
	7049	Up to 5 year extended life vinyl.	3.8 0.9 6.8	Soft White EL Vinyl NTC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 5000'	Screen	UL RoHS
	7051	Up to 5 year extended life vinyl. High performance adhesive.	3.8 1.1 6.8	Soft White EL Vinyl NTC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	UL RoHS
	7051SA	Extended life, white finish, adhesive allows trapped air to release to prevent bubbles, good for powder coated surfaces, high performance adhesive.	3.8 1.1 6.8	Soft White EL Vinyl NT 350 90# Polycoated Kraft	Sheet 20" x 27" Roll 54" x 750"	Flexo	RoHS
	7063	Ultra removable from smooth surfaces. Topcoated. Excellent alternative to static cling.	3.2 0.8 6.8	Soft White Vinyl TC9 R3500 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	RoHS
	7065	Non-topcoated version of 7063.	4.0 0.8 6.8	Soft White Vinyl NTC R3500 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	RoHS
	7902	Non top-coated. Conformable to contoured surfaces. Heavy lay-flat liner. Ideal for screen printing.	3.5 1.2 6.8	Soft White Vinyl NTC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen	UL CSA RoHS
	7904	Conformable to contoured surfaces. Excellent adhesion to LSE plastics and textured powder coats.	3.4 1.8 6.8	Soft White Vinyl NTC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen	RoHS
	7901	Non top-coated. High bond, but offers clean removability on most surfaces for up to one year. Excellent for plasticizer resistance.	3.5 1.0 6.8	Soft White Vinyl NTC 500 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen	RoHS
	7930T	Resists one-piece removal. Facestock fractures and tears easily. Excellent adhesion to powder coating, LSE plastics, and oily metals.	2.0 0.8 6.8	White Destructible TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 48" x 750'	Screen	UL CSA RoHS
Vinyl Clear	7053	Semi-flexible, non top-coated film designed for screen printing applications.	4.0 1.1 6.8	Soft Clear Vinyl NTC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	RoHS
	7054	Top-coated for receptivity with UV screen ink systems. Adhesion to a variety of surfaces.	4.0 0.9 6.8	Soft Clear Vinyl TC9 P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen	RoHS
	FV020605	Ultra removable from smooth surfaces. Topcoated. Excellent alternative to static cling.	4.0 0.8 6.8	Soft Clear Vinyl TC9 R3500 90# Polycoated Kraft	Sheet - 20"x 27" Rolls 27"x 750' Master - 54" x 750'	Screen	RoHS
	FV1405	Ultra removable from smooth surfaces. Non-topcoated. Excellent alternative to static cling.	4.0 0.8 6.8	Soft Clear Vinyl NTC R3500 90# Polycoated Kraft	Sheet - 20"x 27" Rolls 27"x750' Master - 54" x 750'	Screen	RoHS

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3M™ Sheet Label Materials (cont.) (Standard Sheet Size 20 x 27 Packed 200 per box)

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester White	7034	Glossy white film, excellent choice for screen printing applications. Good convertibility.	2.0 0.9 6.8	PET, White TC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 5000'	Screen, Flexo	UL RoHS
	7035	Excellent adhesion to LSE plastics and powder coated paints. Moderate coat weight of adhesive improves processing.	2.0 1.1 6.8	PET, White TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7037	Same film as 7036 with aggressive adhesive for difficult substrates.	2.0 1.1 6.8	PET, White MC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7220SA	Adhesive allows trapped air to release to prevent bubbling, chemical resistant, goo for powder coated surfaces, slightly oily metals, high performance adhesive.	2.0 1.1 6.8	PET, Gloss White TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	RoHS
	7907	350 adhesive for performance applications that require thermal transfer printing and demand adhesive performance on difficult to stick to surfaces. E.g. HSE plastics or powder coats.	2.3 1.8 6.8	PET, Matte White TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7908	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats.	2.0 1.8 6.8	PET, Gloss White TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7908FL	Same as 7908 except with thick polyester liner suitable for domed decals.	2.0 1.8 4.0	PET, Gloss White TC 350 Polyester	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7920	Good abrasion and chemical resistance. Excellent cold temperature performance. Ideal for screen printing.	1.0 0.8 6.8	PET, Gloss White TC 400 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7931	High abrasion and solvent resistance. Good for indoor and outdoor use. Excellent bond to LSE plastics.	2.0 0.8 6.8	PET, Gloss White TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7935	Facestock resists harsh environments. Heavy layflat liner. Ideal for screen printing.	2.0 0.8 6.8	PET, Gloss White VOID TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL RoHS
	7937	Ideal for security rating plates and certification plates. Heavy lay-flat liner. Ideal for screen printing.	2.3 0.8 6.8	PET, Gloss White VOID TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL RoHS
	7980	Matte top-coat resists scuffing, chemicals, and moisture. Excellent adhesion to smooth LSE plastics. Designed for screen printing.	2.3 0.8 6.8	PET, Matte White TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo, DMI	UL RoHS
Polyester Clear	7029	Excellent UV resistance. Good adhesion to a variety of surfaces	2.0 0.9 6.8	PET, Clear TC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7905	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coats.	2.0 1.8 6.8	PET, Gloss Clear TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7950	Offers high abrasion and solvent resistance. Excellent adhesion to smooth LSE plastics. Ideal for indoor and outdoor applications.	2.0 0.8 6.8	PET, Gloss Clear TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS

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3M™ Sheet Label Materials (*Standard Sheet Size 20 x 27 Packed 200 per box*)

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester Silver	7025	General purpose adhesive designed for outdoor applications. Designed for use with smooth surfaces.	2.0 0.9 6.8	PET, Bright Silver TC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 5000'	Screen, Flexo	UL RoHS
	7026	Excellent chemical and moisture resistance.	2.0 1.1 6.8	PET, Bright Silver TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7027	Good adhesion to smooth HSE and LSE surfaces. Ideal for indoor and outdoor applications.	2.0 0.9 6.8	PET, Brushed Silver TC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 5000'	Screen, Flexo	UL RoHS
	7028	Similar to 7909 with slightly lower coat weight for easier processing.	2.0 1.1 6.8	PET, Brushed Silver TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7032	Excellent lay-flat performance for screen printing applications.	2.0 0.9 6.8	PET, Matte Silver TC P1400 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7033	Aggressive adhesive for harsh environments.	2.0 1.1 6.8	PET, Matte Silver TC 350 90# Polycoated Kraft	Sheet - 20"x 27" Master - 54" x 750'	Screen, Flexo	UL RoHS
	7214SA	Adhesive allows trapped air to release to prevent bubbling, chemical resistant, goo for powder coated surfaces, slightly oily metals, high performance adhesive.	2.0 1.1 6.8	PET, Brushed Silver TC 350 90# Polycoated Kraft	Sheet 20" x 27" Roll 54" x 750"	Flexo	RoHS
	7903	Heavy adhesive coat weight for textured surfaces. Excellent high temperature resistance. Excellent adhesion to LSE plastics and powder coated paints.	2.0 1.8 6.8	PET, Bright Silver PT 350 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	7903FL	Same as 7903 except with thick polyester liner suitable for domed decals.	2.0 1.8 4.0	PET, Bright Silver PT 350 Polyester	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	CSA RoHS
	7924	Excellent abrasion and chemical resistance. Excellent adhesion to smooth LSE plastics. Ideal for indoor and outdoor applications.	2.0 0.8 6.8	PET, Gloss Silver TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
	9017FL	Bright silver with thick polyester liner suitable for domed decals. Thick, high-performance adhesive for durable applications.	2.0 5.0 4.0	PET, Bright Silver PT 200MP Polyester	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	RoHS
	9018FL	Brushed silver with thick polyester liner suitable for domed decals. Thick, high-performance adhesive for durable applications.	2.0 5.0 4.0	PET, Brushed Silver PT 200MP Polyester	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	RoHS
Polyester Gold	7925	Offers high abrasion and solvent resistance. Excellent quick stick and bond to smooth LSE plastics. Uses include instruction and schematic panels.	2.0 0.8 6.8	PET, Gloss Gold TC 300 90# Polycoated Kraft	Sheet - 20"x 27" Roll - 54" x 750'	Screen, Flexo	UL CSA RoHS
Aluminum Foil Silver	7940	Vinyl top-coated for ink receptivity. Heavy adhesive coat weight suitable for textured surfaces.	2.0 1.7 6.8	Matte Silver TC 320 90# Polycoated Kraft	Sheet - 20"x 27" Rolls - see product 7800	Screen, Flexo, DMI	UL CSA RoHS
	7941	Vinyl top-coated for ink receptivity. Excellent for rough or textured surfaces. High-temperature resistant adhesive.	2.0 3.5 6.8	Matte Silver TC 200 90# Polycoated Kraft	Sheet - 20"x 27" Rolls - see product 7804	Screen, Flexo, DMI	UL CSA RoHS

* Can be used to display the UL listing mark but each case must be reviewed and approved by UL follow-up services before use.

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3M™ HP Indigo-optimized Label Materials *(One roll minimum, no upcharge)*

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester	7225	Durable HP Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.0 0.9 3.2	PET, White Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS
	7238	Durable HP Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.0 0.9 3.2	PET, Matte Silver Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS
	7244	Durable Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.0 0.9 3.2	PET, Clear Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS
	7250	Durable HP Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.0 0.9 3.2	PET, Bright Silver Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS
	FM051305	Same as 7225, except with 90# layflat liner	2.0 0.9 6.8	PET, White Digital P1400 90# Polycoated Kraft	Sheet - 12" x 18"	Digital	UL* RoHS
	FM051405	Same as 7250 except with 90# layflat liner	2.0 0.9 6.8	PET, Bright Silver Digital P1400 90# Polycoated Kraft	Sheet - 12" x 18"	Digital	UL* RoHS
	FM051505	Same as 7238, except with 90# layflat liner	2.0 0.9 6.8	PET, Matte Silver Digital P1400 90# Polycoated Kraft	Sheet - 12" x 18"	Digital	UL* RoHS
	FM051605	Same as 7244, except with 90# layflat liner	2.0 0.9 6.8	PET, Clear Digital P1400 90# Polycoated Kraft	Sheet - 12" x 18"	Digital	UL* RoHS
	FM053705	Durable HP Indigo-optimized coating. Good adhesion to many substrates. Layflat liner.	2.0 0.9 6.8	PET, Brushed Silver Digital P1400 90# Polycoated Kraft	Sheet - 12" x 18"	Digital	UL* RoHS
Polypropylene	7227	HP Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.0 0.9 3.2	PP, Silver Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS
	7237	HP Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.0 0.9 3.2	PP, Clear Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS
	7242	HP Indigo-optimized coating. Pattern coated to eliminate adhesive ooze. Good adhesion to many substrates.	2.6 0.9 3.2	PP, White Digital P1400 50# Super Calendared Kraft	12.75" x 1668' Master - 54" x 1668'	Digital	UL* RoHS

* When laminated with 7733FL.

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3M™ Overlaminates Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Gloss Clear</i>	7730FL	Non top-coated. Film liner offers excellent graphic appearance. Ideal for metallized or dark colors. Excellent durability and UV resistance.	1.0 0.8 1.5	PET, Clear NTC 400 Polyester Film	54" 1668' Min.		UL CSA RoHS
	7731FL	Non top-coated. Same as 7730FL, except with 2.0 mil facestock.	2.0 0.8 1.5	PET, Clear NTC 400 Polyester Film	54" 1668' Min. 4.5", 6"		UL CSA RoHS
	7733FL	Resists UV exposure for extended periods of time. Provides premium clarity that will not impart haze on underlying graphics.	1.0 0.8 1.5	PET, Clear UV 400 Polyester	54" 1668' Min. 6, 12.25"		UL RoHS
	7741	Non top-coated. For general purpose overlaminating. Excellent abrasion, chemical, and UV resistance.	1.0 0.8 2.5	PET, Clear NTC 400 43# Densified Kraft	54" 1668' Min.		UL CSA RoHS
	7743FL	Non top-coated. Same as 7730FL, except 4.0 mil facestock.	4.0 0.8 1.5	PET, Clear NTC 400 Polyester Film	54" 1668' Min.		UL CSA RoHS
	8417	Non top-coated. Ideal for fuel line identification. Meets MIL-T-9906C when used with 8418 press printable film label stock.	1.0 1.2	PET, Clear NTC 100	48" 216 yd		UL M* RoHS
	FM011	Basic polyester overlaminating film with general purpose adhesive.	1.0 0.8 2.5	PET, Clear NTC P1212 40# SC	54" 1668' Min.		UL RoHS
	FM01N	Same as FM011 with film liner.	1.0 0.8 1.0	PET, Clear NTC P1212 Clear Polyester	54" 1668' Min.		UL RoHS
	FM022	General purpose overlaminating film for indoor use.	2.0 0.9 3.2	PET, Clear NTC P1212 50# SC	54" 1668' Min.		UL RoHS
	FM1142	4.0 mil version of FM022	4.0 0.9 3.2	PET, Clear NTC P1212 50# SC	54" 1668' Min.		RoHS
	FM292	High clarity adhesive. Abrasion resistant film. Designed for indoor applications.	3.0 0.9 3.2	PET, Clear NTC P1212 50# SC	54" 1668' Min.		UL RoHS
	FM452	Heavy gauge durable non top-coated film designed for overlaminating applications. Abrasion resistant. Designed for indoor applications.	5.0 0.9 3.2	PET, Clear NTC P1212 50# SC	54" 1668' Min.		UL RoHS
	FM45N	Same as FM452 with a film liner for ultimate adhesive clarity.	5.0 0.9 1.0	PET, Clear NTC P1212 Clear Polyester	54" 1668' Min.		UL RoHS
	OFM0102	Excellent UV resistance. Designed for indoor and outdoor overlaminating applications.	1.0 0.8 3.2	PET, Clear NTC P1400 50# SC	54" 1668' Min.		UL RoHS
	OFM010N	Same as OFM0102 with a clear liner for ultimate adhesive smoothness.	1.0 0.8 1.0	PET, Clear NTC P1400 Clear Polyester	54" 1668' Min. 4.5", 6"		UL RoHS

* Meets L-T-100B Type.

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3M™ Overlamine Label Materials (cont.)

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polyester <i>Matte Clear</i>	7732FL	Non top-coated. Film liner provides excellent clarity. Ideal for metallized or dark colors. Excellent durability and UV resistance.	1.0 0.8 1.5	PET, Matte NTC 400 Polyester Film	54" 1668' Min.		UL CSA RoHS
	7742	Non top-coated. For general purpose overlaminating. Excellent abrasion, chemical, and UV resistance.	1.0 0.8 2.5	PET, Matte NTC 400 43# Densified Kraft	54" 1668' Min.		UL CSA RoHS
	7744FL	Thermal transfer printable matte top-coat. Ideal where variable information is needed. Film liner provides smoother adhesive appearance.	1.3 0.8 1.5	PET, Matte TT TC 400 Polyester	54" 1668' Min.	Flexo, TT	UL CSA RoHS
	7745FL	Dot-matrix imprintable matte top-coat. Ideal where variable information is needed.	1.3 0.8 1.5	PET, Matte DMI TC 400 Polyester Film	54" x 1668' Min. 6"	Flexo, DMI	UL CSA RoHS
	FM071	Matte clear film for general purpose overlaminating applications.	1.0 0.8 2.5	PET, Matte NTC P1212 40# SC	54" 1668' Min.		UL RoHS
	FMA92	Thicker version of FM071.	2.0 0.8 3.2	PET, Matte NTC P1212 50# SC	54" 1668' Min.		RoHS
Acetate <i>Clear</i>	8042	Matte overlamine designed for use with 803 chart tape.	1.6 0.7	Matte Acetate 400	47" 216 yd		RoHS
Acrylate <i>Clear</i>	7735FL	Ideal for long term outdoor applications. Special UV resistant film provides 5 years outdoor durability.	3.0 0.8 1.5	UV Resistant Acrylate 400 Polyester Film	48" 1668' Min. 6"	Flexo, TT	UL CSA RoHS
Textured Vinyl <i>Clear</i>	FV02800N	Textured, durable film is an alternative to polycarbonate for less demanding applications. High clarity general purpose adhesive with good initial tack and excellent die cutting properties.	4.0 0.9 1.0	Textured Vinyl NTC P1212 Clear Polyester	54" 1668' Min.		RoHS
	FV02490N	Thicker version of FV02800N.	5.0 0.9 .0	Textured Vinyl NTC P1212 Clear Polyester	54" 1668' Min.		RoHS
	FV02610N	Adhesive offers excellent UV resistance for outdoor applications.	5.0 1.0 1.0	Textured Vinyl NTC P1400 Clear Polyester	54" 1668' Min. 6"		RoHS
Polycarbonate <i>Clear</i>	7737FL	Used to achieve the attractive appearance of a subsurface screen printed polycarbonate.	3.0 0.8 1.5	Velvet Clear Lexan™ 400 Polyester Film	54" 1668' Min.		UL CSA RoHS
	7738FL	Same as 7737FL, except with 5.0 mil facestock.	5.0 0.8 1.5	Velvet Clear Lexan™ 400 Polyester Film	54" 1668' Min.		UL CSA RoHS
	FL01N	Liner offers high strength and caliper control. Recommended where the clarity of the adhesive is critical.	5.0 1.1 1.0	Velvet Clear Lexan™ P1212 Clear Polyester	54" 1668' Min.		RoHS
	FL02N	Similar to 7737FL. High clarity general purpose adhesive. Designed for indoor use.	3.0 1.1 1.0	Velvet Clear Lexan™ P1212 Clear Polyester	54" 1668' Min.		UL RoHS
	OFL010N	Specialty durable polycarbonate overlamine. High performance adhesive formulated for demanding applications. Adheres to a variety of surfaces. Excellent UV resistance.	3.0 1.0 1.0	Velvet Clear Lexan™ P1400 Clear Polyester	54" 1668' Min. 6"		UL RoHS
	OFL020N	Thicker caliper version of OFL010N.	5.0 1.0 1.0	Velvet Clear Lexan™ P1400 Clear Polyester	54" 1668' Min. 6"		UL RoHS

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3M™ Foil Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Aluminum Foil	7800	Vinyl top-coated for ink receptivity. Heavy adhesive coat weight suitable for textured surfaces. Excellent adhesion to LSE plastics.	2.0 1.7 3.0	Matte Silver TC 320 60# Densified Kraft	40" 1668' Min. 6.5"	Flexo, DMI	UL CSA RoHS
	7801	Vinyl top-coated for ink receptivity. Heavy adhesive coat weight ideal for textured surfaces. Excellent adhesion to LSE plastics.	2.0 1.7 3.0	Bright Silver TC 320 60# Densified Kraft	40" 1668' Min.	Flexo, DMI	UL CSA RoHS
	7804	Vinyl top-coated for ink receptivity. Excellent for rough or textured surfaces. High-temperature resistant adhesive.	2.0 3.5 3.0	Matte Silver TC 200 60# Densified Kraft	40" 1668' Min.	Flexo, DMI	UL CSA RoHS

3M™ Tire Label Material

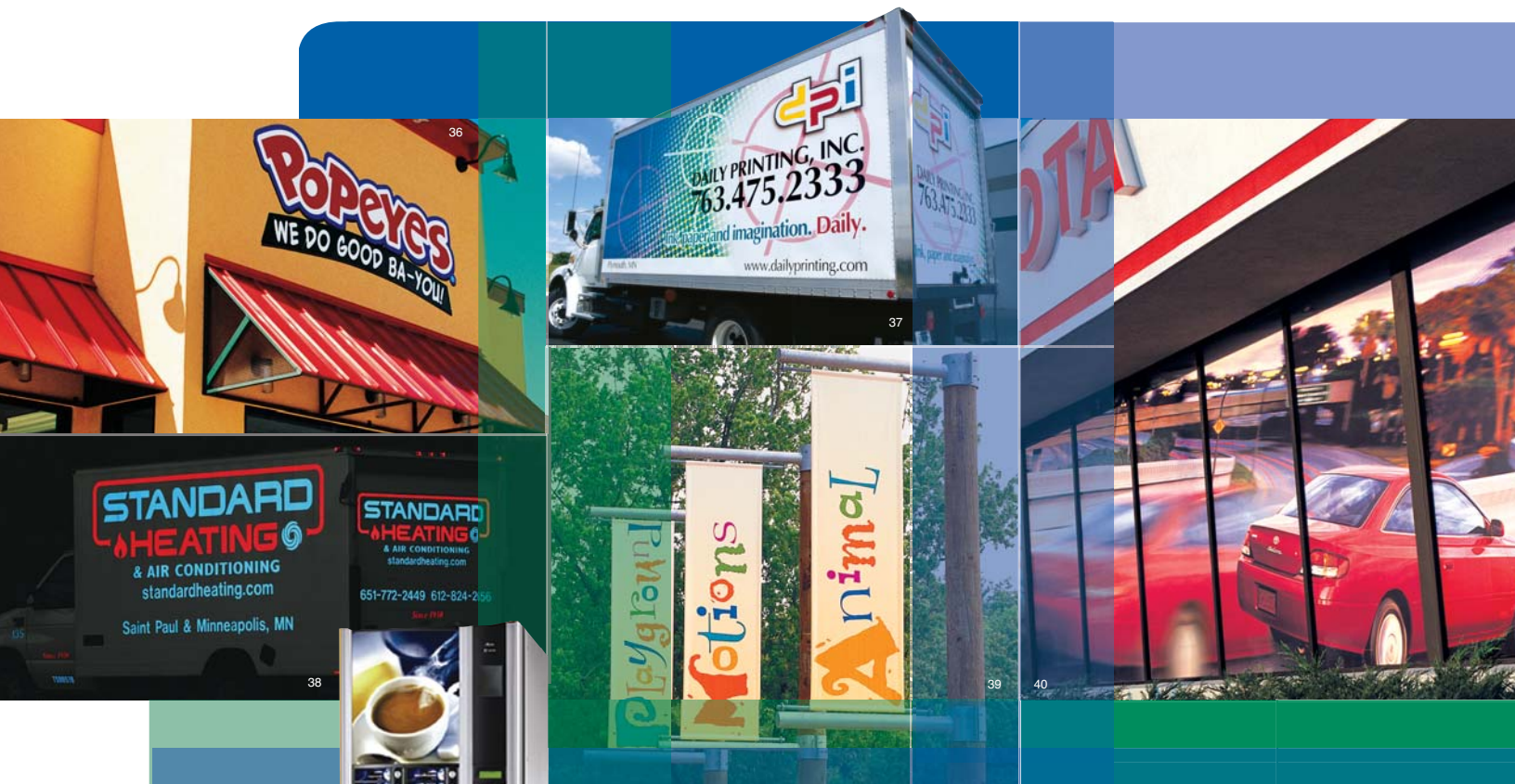
Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive Type Liner			
Polypropylene	FP028502	Excellent film opacity. Extremely aggressive rubber-based adhesive designed for use in tire label applications	2.6 1.8 3.2	PP, White TC2S G1120 50# SC	54" 1668' Min.	Flexo, TT	RoHS

3M™ Decorative Label Materials

Facestock	Product	Typical Performance Characteristics	Construction		Roll Width Minimum Mini-Master (shown in red)	Print Method	Specs
			Caliper Mils	Facestock Adhesive type Liner			
Polyester	CM500	A premium grade, reflective multi-layer color-shifting film. Depending on the viewing angle, visible colors are blue, magenta or gold. It is a multi-layer, polymeric film having a polyester surface. The film is metal free, non-corroding and non-conductive. It may be embossed, die-cut, sheer slit, precision cut, surface treated, dyed, coated to be heat sealed, coated or laminated with adhesive, printed and extruded into plastics. CM500 is thermally stable, exhibits low shrinkage and withstands maximum process temperatures of 257°F (125°C). When combined with suitable color substrates, different color shifts can be achieved.	1.15 N/A N/A	Polyester None None	56" x 9000' 28" x 9000'	Press	RoHS
	CM592	A premium grade, reflective, multi-layer color shifting film. Depending on the viewing angle, visible colors are cyan, blue, or magenta. It is a multi-layer, polymeric film having a polyester surface. The film is metal free, non-corroding and non-conductive. It may be embossed, die-cut, sheer slit, precision cut, surface treated, dyed, coated to be heat sealed, coated or laminated with adhesive, printed and extruded into plastics. CM592 is thermally stable, exhibits low shrinkage and withstands maximum process temperatures of 257°F (125°C). When combined with suitable color substrates, different color shifts can be achieved.	1.30 N/A N/A	Polyester None None	56" x 9000' 28" x 9000'	Press	RoHS
	CMT500	Identical to CM500 above in addition to a printable topcoat. Printable polyester for label, point of purchase and packaging.	1.15 N/A N/A	Polyester TC None None	54" x 1668'	Flexo, TT, Screen	RoHS
	CMT592	Identical to CM592 above in addition to a printable topcoat. Printable polyester for label, point of purchase and packaging.	1.30 N/A N/A	Polyester TC None None	54" x 1668'	Flexo, TT, Screen	RoHS
	CML500	Identical to CMT500 above in addition to an adhesive layer. Printable polyester for label, point of purchase and packaging.	1.15 0.9 3.2	Polyester TC P1400 50# SC	54" x 1668' 6"	Flexo, TT, Screen	RoHS
	CML592	Identical to CMT592 above in addition to an adhesive layer. Printable polyester for label, point of purchase and packaging.	1.30 0.9 3.2	Polyester TC P1400 50# SC	54" x 1668' 6"	Flexo, TT, Screen	RoHS

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3M™ Commercial Graphics



Your customers put their reputations on display with a significant investment in your commercial graphics. For long, medium and short-term indoor and outdoor applications, reliable 3M films and overlaminates stand up to the elements for a high quality image. Graphics using 3M materials apply easily and resist fading, peeling, and cracking - giving your customers peace of mind. This is the image that keeps customers coming back to you with repeat business.

In this section, you'll find many competitive features and advantages including the following:

- 3M™ Controltac™ Graphic Film for repositionability
- 3M™ Comply™ Adhesive with air release channels for the easiest and fastest bubble-free applications
- 3M™ Scotchlite™ Reflective Graphic Films for the most brilliant nighttime viewing with reflected light.



Product Number	Product Name	Application					Imaging Technology			Durability			
		Fleet	Signs & Graphics	Banner	Window	Floors	Sidewalk	Piezo	Solvent	Screen Print	Thermal Transfer	Long-term >= 5 Yrs	Medium-term 2-4 yrs
2 mil Graphic Films	180	3M™ Controltac™ Graphic Film Series	•	•					•		•		
	180C	3M™ Controltac™ Graphic Film with Comply™ Adhesive Series	•	•					•		•		
	650	3M™ Scotchcal™ Graphic Film Series		•					•			•	
	3650	3M™ Scotchcal™ Graphic Film Series	•	•	•				•		•		
	3662-10	3M™ Scotchcal™ Graphic Film					•		•				•
	3690	3M™ Scotchcal™ Graphic Film Series	•	•					•		•		
	7125	3M™ Scotchcal™ ElectroCut™ Graphic Film Series	•	•	•				•	•	•		
	7725	3M™ Scotchcal™ ElectroCut™ Graphic Film Series	•	•	•				•	•	•		
	7725SE	3M™ Scotchcal™ ElectroCut™ Graphic Film Series		•	•				•	•		•	
	8000	3M™ Scotchcal™ Railroad Graphic Film Series	•						•		•		
4 mil Graphic Films	160	3M™ Controltac™ Graphic Film Series	•	•					•		•		
	160C	3M™ Controltac™ Graphic Film with Comply™ Adhesive Series	•	•					•		•		
	162	3M™ Controltac™ Graphic Film Series					•		•				•
	164	3M™ Controltac™ Graphic Film Series				•			•				•
	3470	3M™ Scotchcal™ Graphic Film Series	•	•					•			•	
	3500C	3M™ Controltac™ Changeable Graphic Film with Comply™ Adhesive Series	•	•					•				•
	3545C	3M™ Controltac™ Removable Graphic Film with Comply™ Adhesive	•	•				•				•	
	SC50	3M™ Scotchcal™ Graphic Film Series 50	•	•					•	•		•	
	8171	3M™ Scotchcal™ Perforated Window Graphic Film	•			•			•				•
Banners	IJ51	3M™ Single-Sided Banner Material IJ51			•				•				•
	IJ52	3M™ Double-Sided Banner Material IJ52			•				•				•
	IJ53	3M™ Mesh Banner Material IJ53			•				•				•
	IJ54	3M™ Mesh Banner Material with Liner IJ54			•				•				•
Reflective Graphic Films	680	3M™ Scotchlite™ Reflective Graphic Film Series	•	•					•		•		
	680CR	3M™ Scotchlite™ Removable Reflective Graphic Film with Comply™ Adhesive Series	•	•					•		•		
	5000	3M™ Scotchlite™ Reflective Graphic Film	•	•					•				•
	5100R	3M™ Scotchlite™ Intermediate Reflective Graphic Film	•	•					•			•	

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Commercial Graphics – Glossary

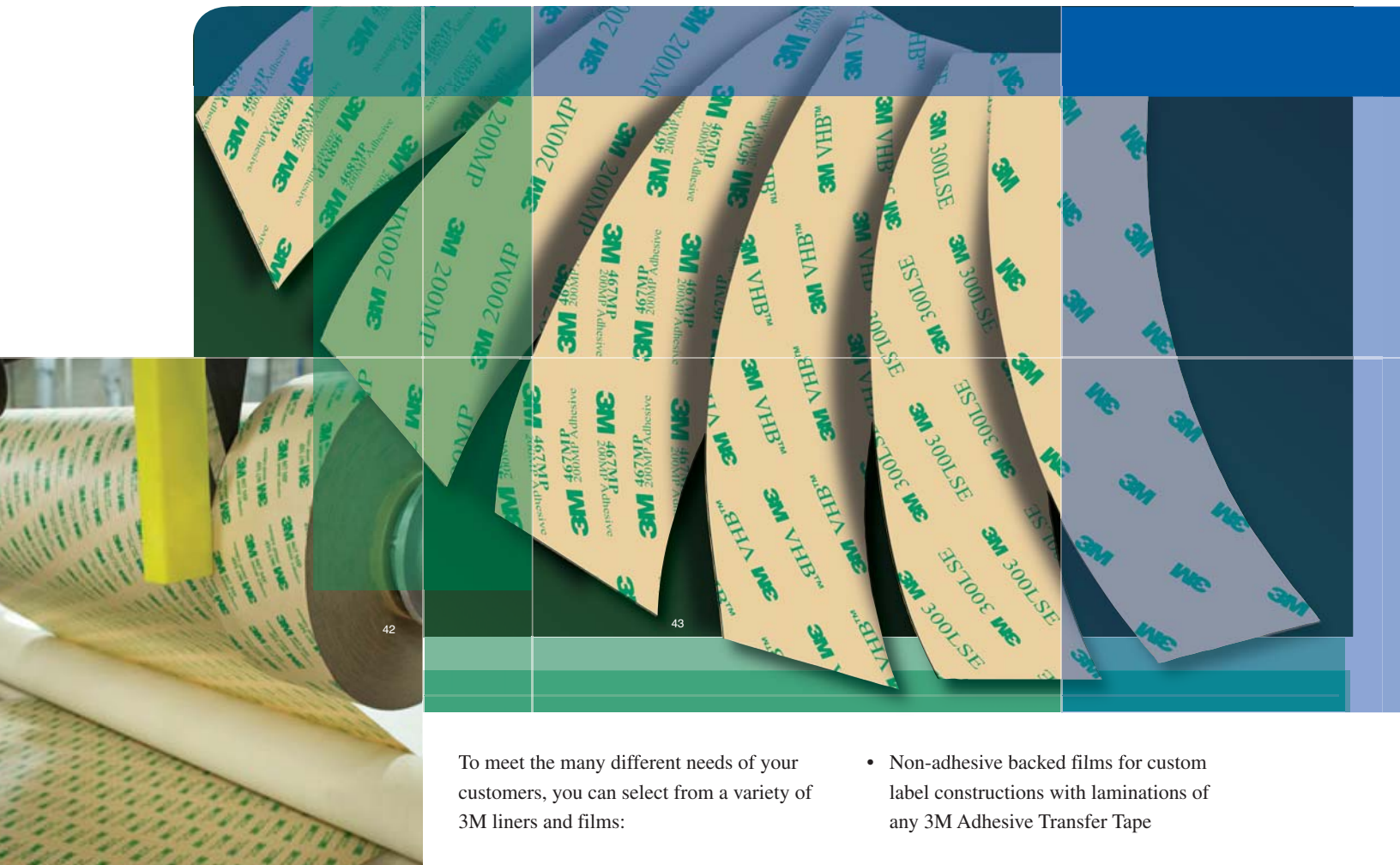
3M™ Comply™ Adhesive	3M brand name for a characteristic that permits air bubbles to escape through channels in the adhesive as a film is being applied.
3M™ Controltac™ Graphic Film	3M brand name for films with pressure-activated adhesive that is slideable and repositionable until pressure bonds it to the substrate.
3M™ Scotchcal™ Graphic Film	3M brand name for films with pressure-sensitive adhesive that bonds upon contact.
3M™ Scotchcal™ Overlamine	3M brand name for a transparent film that can enhance or change the gloss of a graphic as well as provide resistance to dirt, abrasion and harmful UV light.
3M™ Scotchlite™ Reflective Graphic Film	3M brand name for a retroreflective film that allows a graphic to be clearly seen in low or no ambient light situations when a light source is directed at it from a point near the viewer's location.
Cast Film	Highest quality vinyl film for the best in image quality, conformability, dimensional stability and durability.
Changeable Film	Can be removed without heat or chemicals and leaves little or no adhesive residue.
Compound Curves	A surface with three-dimensional curves.
Conformable	A feature in some graphic films that allows it to conform around curves and rivets.
Perforated	A grid of small holes found in some printable films that allows an image to be seen on one side of a clear substrate, but allows a viewer to see through the film from the other side.
Permanent Adhesive	Adhesive that is not intended to be removable.
Positionable or Repositionable (As used in 3M™ Controltac™ Graphic Films only)	Light finger pressure may be used to tack the film in place to check for proper positioning and then repositioned if necessary. Firm pressure applied by any means, as well as high application temperature or removing and trying to reapply any liner, eliminates this feature.
Pressure-Activated Adhesive (As used in 3M™ Controltac™ Graphic Films)	Slideable, positionable and repositionable until firm pressure is applied with hand, squeegee or other application tool. Incompletely dried solvent in piezo inkjet printed film may reduce the slideability. An applied film cannot be moved to another position.
Pressure-Activated Adhesive (As used in 3M™ Scotchlite™ Graphic Films 680 and 680CR)	Slideable until firm pressure is applied with hand, squeegee or other application tool. Incompletely dried solvent in piezo inkjet printed film may reduce the slideability. An applied film cannot be moved to another position.
Pressure-Sensitive Adhesive	Adheres upon contact to the substrate. Does not slide and cannot be repositioned.
Removable Adhesive	Can be removed with heat leaving little or no adhesive residue. Occasionally chemicals are also needed.

NOTE:

*All fleet graphics and other graphics subjected to abrasion require graphic protection.

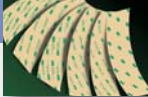
**Please refer to the applicable product bulletin for a list of compatible products and intended uses.

3M™ Release Liners



To meet the many different needs of your customers, you can select from a variety of 3M liners and films:

- Paper and film for the flexibility to create double liner transfer tapes and foam tapes for selective rotary or flat bed die-cutting
- Silicone-free liners if silicone contamination is an issue
- Non-adhesive backed films for custom label constructions with laminations of any 3M Adhesive Transfer Tape
- Clear films to subsurface print and “sandwich” the printing between film and adhesive, eliminating protective overlamine



3M™ Release Liners and Printable Films

Product Group	Product	Description/Application Ideas	Construction		Master Size
			Caliper Mils	Liner	
Release Liners <i>Non-silicone</i>	4935	3M proprietary fluoropolymer release coat one side.	3.0	Polyester, Clear	40" x 360 yd
	5932	3M proprietary fluoropolymer release coat one side.	2.0	Polyester, Clear	54" x 360 yd
Release Liners <i>Silicone</i>	4986	High-density polyethylene is transparent for graphic inspection. Release coat one side. For delamination/relamination only.	3.0	HDPE Film, Clear	48" x 360 yd
	4988	Neutral-colored, polycoated lay-flat kraft liner. Release coat one side.	6.2	83# Polycoated Kraft, Neutral color	61" x 360 yd
	4994	Caliper controlled liner for rotary die-cutting. Release coated two sides. Very low release for double lining #300 high-strength adhesive.	3.2	55# Densified Kraft, White	54" x 360 yd
	4996	Clear film is ideal for graphics inspection of backlit panels. Release coat one side.	1.4	Polyester Film, Clear	54" x 360 yd
	4997	Heavy liner ideal for kiss-cutting and lay-flat applications. Release coat one side.	4.0	70# Densified Kraft, Clear	54" x 360 yd
	4998	Release coat two sides (matte).	4.2	58# Polycoated Kraft, Tan	48" x 360 yd
	4999	Caliper controlled liner for rotary die-cutting. Release coat one side.	3.2	55# Densified Kraft, White	54" x 360 yd
	5002	Clear polyester film for rotary cutting. Release coat one side.	2.0	Polyester Film, Clear	60" x 360 yd
	5002D	Clear polyester film for rotary cutting. Release coat two sides.	2.0	Polyester Film, Clear	60" x 360 yd
	5004	Thick, clear polyester film for rotary cutting. Release coat one side.	4.0	Polyester Film, Clear	50" x 360 yd
	5051	Special PCK liner for double lining 300LSE tapes. Release coat one side.	4.2	58# Polycoated Kraft	48" x 180 yd
	7526L	Tan polycoated kraft. Release coat two sides (matte).	4.2	58# Polycoated Kraft	48" x 360 yd
	7527L	Cloudy high-density polyethylene. Release coat one side.	3.0	HDPE Film	48" x 360 yd

Product Group	Product	Description/Application Ideas	Construction		Master Size	Print Method	Specs
			Caliper Mils	Liner			
Printable Polyester Films - <i>Label Component Films</i>	8038	Top-coated film for use with standard printing inks. Top-coat is wound inside. Clear film allows for subsurface printing. Used for automotive, electronics, and other durable goods applications.	2.0	Polyester, Gloss Clear	48" x 720 yd	Press	
	8039	Non top-coated. Clear film allows for subsurface printing for protection of inks. Typical use in over-the-counter and pharmaceutical applications.	2.0	Polyester, Matte Clear (NTC)	48" x 720 yd	Press	UL
	8049	Matte top-coat for dot-matrix printing. Clear film allows for subsurface printing of inks.	2.5	Polyester, Matte Clear	54" x 720 yd	Dot Matrix	UL
	8050	Matte top-coat for dot-matrix printing. Excellent abrasion and chemical resistance.	2.5	Polyester, Matte White	54" x 720 yd	Dot Matrix	UL
	8053	Same as 8050, except matte silver.	2.5	Polyester, Matte Silver	54" x 720 yd	Dot Matrix	UL
	8057	Provides excellent durability. Used for automotive, electronic, and other durable goods applications.	2.0	Polyester, Gloss White	54" x 720 yd	Thermal Transfer	
	8058NT	Same as 8057, except bright silver. Top-coat is wound inside.	2.0	Polyester, Bright Silver	54" x 720 yd	Thermal Transfer	

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3M™ Single Coated Tapes



In this section, 3M adhesive science is typically applied to protecting, masking, enhancing, or in other ways modifying surfaces to improve appearance, function, and productivity. Applications range from protecting surfaces against scratches to paint masking, reflecting heat to repelling sticky materials, and more.

You'll find the following solutions:

- 3M™ Single Coated Tapes
- 3M™ Single Coated Foam Tapes
- 3M™ Repulpable Tapes
- 3M™ Protective Tape Products
- 3M™ EMI Shielding and Electrical Tapes



Selecting the right product for the job

To help you make sure you find the optimum 3M tape or other adhesive-backed product for your particular application, you'll want to consider several factors:

- Backing material
- Adhesive type
- Application time and temperature
- Surface characteristics (eg., roughness, surface energy, contours, etc.)
- End use conditions (eg., temperature, UV exposure, abrasion, etc.)

The information on these two pages integrates those factors to help you narrow your selection to fewer products for a more in-depth evaluation.

3M Backing Materials

In many applications, 3M backings add a second surface that affects how the underlying surface relates to the environment.

To optimize that relationship, 3M backings offer a wide choice of performance and handling characteristics.

Backings	Characteristics
Paper	
Crepe	Conformable, easy tear.
Flatback	Strong, smooth, good for straight line masking.
Kraft	Strong, some versions are repulpable.
Tissue	Thin, porous to allow adhesive penetration of sheet.
Plastic	
Polyester	Strong even when thin, chemical resistant, high temperature resistance.
Polypropylene	Resistant to most solvents, conformable, tear resistant.
Polyethylene	Conformable, easy to stretch, chemical/acid/moisture resistant, economical.
Polyethylene/ Polypropylene Co-polymer	Conformable, chemical/acid/moisture resistant.
UHMW – Polyethylene	High abrasion resistance, low coefficient of friction, antistick surface easy to clean.
Polyvinyl Chloride (Vinyl)	Conformable, abrasion resistant, resistant to most chemicals.
Polyimide (eg., Kapton®)	High temperature resistance, excellent dimensional stability, good insulation properties.
Polyamide (Nylon)	High temperature resistance, high strength and toughness, good chemical resistance but can absorb moisture.
Polytetrafluoroethylene (PTFE)	Low coefficient of friction, excellent high temperature and chemical resistance, antistick/release properties.
Polyvinyl Alcohol (PVA)	Water-soluble, organic solvent resistant, high temperature resistance.
Polyurethane	Abrasion/scratch resistant, impact/puncture resistant, UV and corrosion resistant.
Polyvinyl Fluoride (eg., Tedlar®)	Excellent weather resistance, excellent long-term UV resistance, thin yet stiff feel.
Cloth	
Cotton	Strong, easy tear by hand, soft and drapable.
Glass Cloth	Strong, high temperature resistance, flame-resistant.
Polyethylene Coated	Strong yet hand tearable, abrasion resistant, water-resistant, conformable.
Non-woven	
Fiber	Air permeable, strong enough to hold expanding foams.
Metals	
Aluminum	Heat and light reflective, moisture and chemical resistant, flame-resistant, outdoor weather resistant, conformable.
Lead	Electrically conductive, acid resistant, high conformability, x-ray opacity.
Rubber	
Neoprene	Abrasion resistant, die-cuttable.
Combination (Laminates)	
Paper/Polyethylene	Weather and chemical resistant, hand tearable, stretch resistant.
Metallized/Polyester	Reflective, decorative.
Glass Cloth/PTFE	High temperature resistance, high strength.
Glass Cloth/Aluminum	Very high temperature resistance, high strength.
Non-woven/Aluminum	High heat and cold resistance.

3M Pressure Sensitive Adhesives

Most of the products in this section feature a 3M pressure sensitive adhesive that bonds the backing to another surface on contact. Each adhesive has different characteristics that affect production and end use performance.

Adhesives			
Rubber	Standard Acrylic	Modified Acrylic	Silicone
High initial bond	Moderate initial bond	Bonds to wider variety than standard acrylic	Fair initial bond
Softer	Firmer	Softer	Very firm
Widest variety of surfaces including low surface energy materials*	High surface energy*	Many surfaces	Fewer surfaces
Up to 350°F	Up to 450°F	Up to 300°F	Up to 600°F, excellent low temperature performance
Fair chemical resistance	Excellent chemical resistance	Good chemical resistance	Excellent chemical resistance
Fair UV resistance	Excellent UV resistance	Moderate UV resistance	Excellent UV resistance
Poor aging	Excellent aging	Durable	Excellent aging
Removable	Permanent	Various	Removable
Good solvent resistance	Excellent solvent resistance	Good solvent resistance	Excellent solvent resistance

*Surface energy ranges from high to low. The substrate must be unified, dry, and clean to maximize adhesive contact.

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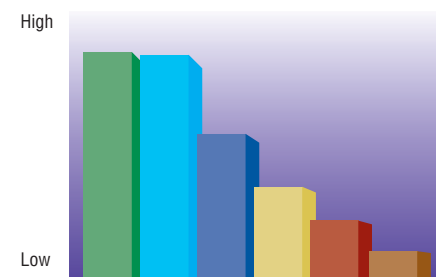
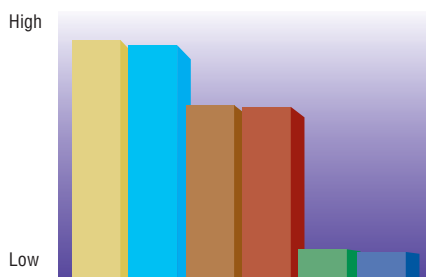
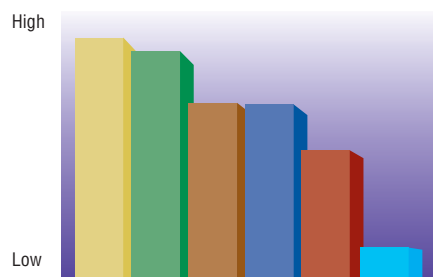
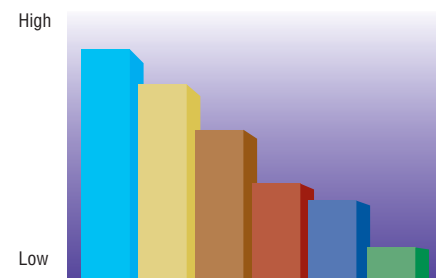
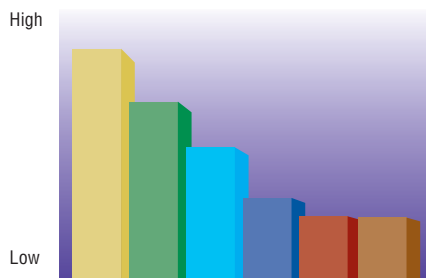
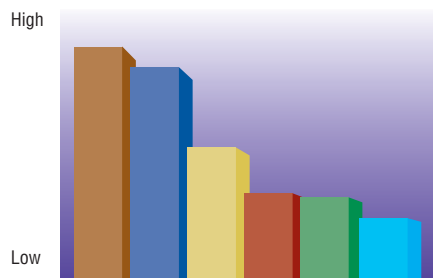
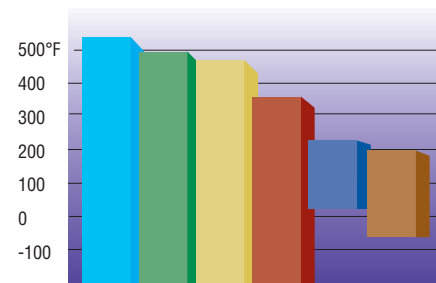
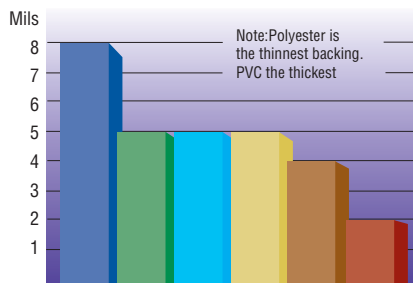


Tape Reference Chart

To help select the tape backing for your application, consult the following charts. Each backing is rated in eight critical categories.

Key to Charts 1-8

PVC=Polyvinyl-chloride	PE=Polyethylene	PET=Polyester
MF=Metal Foil	PTFE=Polytetra-fluoroethylene	GC=Glass Cloth



3. Conformability of Backings

4. Backing Cost

5. Backings as Moisture Barriers

6. Chemical Resistance of Backings

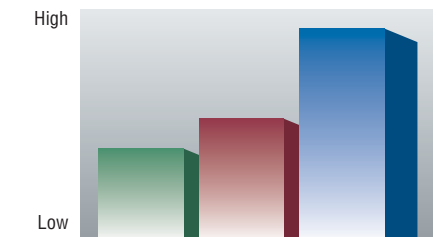
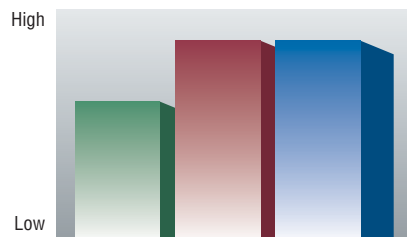
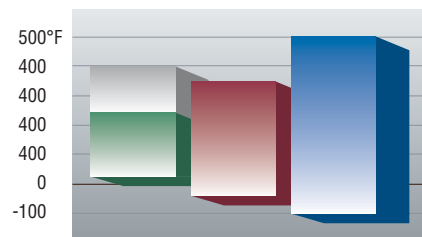
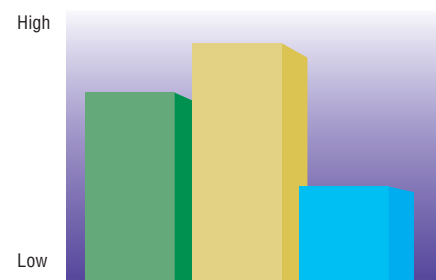
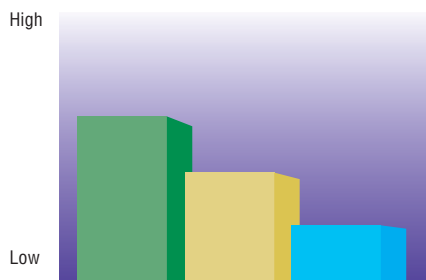
7. Solvent Resistance of Backings

8. Resistance to Recovery (Dead Stretch)

To help select the adhesive for your application, consult the charts below. Each adhesive is rated in five critical categories.

Key to Charts 9-13

R=Rubber Adhesive	A=Acrylic Adhesive	S=Silicone Adhesive



11. Temperature Ranges of Adhesives

12. Long-Aging Capabilities

13. Cost of Adhesives

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
Aluminum Foil	363	An aluminum foil/glass cloth tape that can be used as a high temperature, heat reflective, protective wrap for certain cables and other components in aerospace and industrial applications.	Silver	7.3	Aluminum foil laminated to glass cloth	3.4	Silicone	F.A.R.
	425	Dead-soft aluminum foil tape. Masking of sensitive components to protect from damage during aircraft paint stripping. In white goods appliances, tape provides an excellent moisture barrier, helps reflect and dissipate heat. Qualified to L-T-80B, SAE-AMS-T-23397.	Silver	4.6	Aluminum	2.8	Acrylic	UL, F.A.R.
	427	Dead-soft aluminum foil tape. Lined version of 425 that can be easily die-cut into special sizes or shapes. Mask sensitive components to protect from damage during paint stripping or reflect and dissipate heat.	Silver	4.6	Aluminum	2.8	Acrylic	UL F.A.R.
	431	A 2 mil nominal dead soft aluminum foil with transparent acrylic adhesive for many permanent sealing, holding, splicing or masking applications requiring the protection offered by a foil backing. Meets F.A.R.25.853(a)	Silver	3.1	Aluminum	1.9	Acrylic	F.A.R.
	433	Dead-soft aluminum foil backing with silicone adhesive that can be used in many high temperature applications. MIL-T-47014, meets F.A.R.25.853(a)	Silver	3.6	Aluminum	2.0	Silicone	MIL F.A.R.
	433L	Lined version of 433.	Silver	3.6	Aluminum	2.0	Silicone	MIL F.A.R.
	438	Thickest aluminum tape. Meets F.A.R.25.853(a)	Silver	7.2	Aluminum	5.0	Acrylic	F.A.R.
	439	Conformable aluminum foil with 1.2 mil acrylic adhesive on a 5.6 mil, 83# brown kraft liner. (Lined version of 431.)	Silver	3.1	Aluminum	1.9	Acrylic	F.A.R.
	1430	A dead soft aluminum foil tape combined with a nonwoven web. It has a pressure sensitive adhesive and offers superior sealing benefits of foil with ease of handling and strength of cloth.	Silver	5.5	Aluminum/ Nonwoven web	5.0	Acrylic	
	1449	Thinnest aluminum tape for added conformability.	Silver	2.6	Aluminum	1.4	Acrylic	
	1450	High initial tack on low energy surfaces.	Silver	3.1	Aluminum	1.9	Rubber	
	3311	UL 723 listed, lined.	Silver	3.6	Aluminum	2.0	Rubber	UL
	3326	UL 181A-P and 181B-FX listed, printed backing, lined.	Silver	4.4	Aluminum	2.3	Acrylic	UL
	Aluminum Sound Damping Foil	434	Aluminum foil constraining layer coated with a 2.0 (0.05 mm) pressure sensitive viscoelastic polymer on a blue polyethylene easy-release liner. Controls resonant vibrations from -76°F to 68°F (-60°C to 20°C).	Silver	7.5	Aluminum	5.5	VEP ¹
435		Thicker version of 434.	Silver	13.5	Aluminum	8.0	VEP ¹	F.A.R.
436		Aluminum foil constraining layer coated with a 5.5 (0.14 mm) pressure sensitive viscoelastic polymer on a blue polyethylene easy-release liner. Controls resonant vibrations from -76°F to 68°F (-60°C to 20°C).	Silver	17.5	Aluminum	12.0	VEP ¹	F.A.R.
2552		Aluminum foil constraining layer coated with a 5.0 (0.13 mm) pressure sensitive viscoelastic polymer on a polycoated paper easy-release liner. Controls resonant vibrations from 32°F to 140°F (0°C to 60°C).	Silver	15.0	Aluminum	10.0	VEP ¹	F.A.R.
4014		Foil/foam sheet laminate. Meets F.A.R.25.853(a)	Silver	250	Aluminum- Urethane/Acrylic	3.0	VEP ¹	F.A.R.

¹Viscoelastic polymer

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
Fiberglass Cloth	361	Glass cloth tape coated with a silicone adhesive for many applications requiring high temperature resistance, high adhesion and a very strong abrasion-resistant backing. Also can be certified to F.A.R.25.853	White	7.5	Glass cloth	5.4	Silicone	F.A.R.
	365	Splicing textured surfaces / thermosetting adhesive.	White	8.3	Glass cloth	4.8	Rubber	
	398FR	Glass cloth film tape with acrylic adhesive. Used for sealing seams on aircraft ducting and cargo area panels. Flame retardant.	White	7.0	Glass cloth	5.0	Acrylic	F.A.R.
	398FRP	Printed backing version of 398FR.	White	7.0	Glass cloth	5.0	Acrylic	F.A.R.
	3615	An easy unwind glass tape for many applications requiring high temperature resistance, high adhesion, and a very strong abrasion-resistant backing.	White	6.5	Glass cloth	3.5	Silicone	
	3615L	Film lined version of 3615.	White	6.5	Glass cloth	3.5	Silicone	
	3650	Splicing textured surfaces/thermosetting adhesive (Film lined version of 365.)	White	8.3	Glass cloth	4.8	Rubber	
Lead Foil	420	Lead foil backing with rubber adhesive and a clear, easy-release film liner.	Silver	6.8	Lead Foil	4.7	Rubber	
	421	Unlined plating tape.	Silver	6.3	Lead Foil	4.0	Rubber	
Nonwoven Paper	394	Air-permeable backing.	White	4.1	Nonwoven	4.0	Acrylic	
	3294	Most permeable venting tape.	Pink	5.0	Nonwoven	4.0	Acrylic	
	3394	Air-permeable backing.	Pink	4.1	Nonwoven	4.0	Acrylic	
	9343	Sound management tape with a nonwoven backing, acrylic adhesive. Conformable for irregular parts.	Black	17.0	Nonwoven	6.0	Acrylic	
Paper	200	Cost-effective, low temperature tape for attaching production records during an assembly process, warranty cards, or other temporary communications.	Tan	4.4	Crepe paper	N/A	Rubber	
	202	Medium temperature tape. PPP-T-42C, Type CID A-A883A, Type 1.	Tan	6.3	Crepe paper	N/A	Rubber	
	203	Low temperature tape.	Tan	4.7	Crepe paper	N/A	Rubber	
	213	High temperature, good on anodized aluminum.	Tan	6.5	Crepe paper	N/A	Rubber	
	214	High temperature, stain resistant.	Tan	6.7	Crepe paper	N/A	Rubber	
	225	Outdoor.	Various	5.8	Crepe paper	N/A	Rubber	
	226	Outdoor.	Tan	10.0	PE saturated crepe paper	N/A	Rubber	
	231	Designed to be used in a paint bake operation, up to 300°F (149°C) for 30 minutes.	Tan	6.1	Crepe paper	N/A	Rubber	
	231A	Best all-purpose paint masking tape. PPP-T-42C, Type 1; CID A-A883A, Type 1.	Tan	7.6	Crepe paper	N/A	Rubber	

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
Paper <i>continued</i>	232	Crepe paper tape with rubber adhesive. Designed to be used in the medium temperature paint bake operation, up to 250°F (121°C) for 30 minutes.	Tan	6.3	Crepe paper	N/A	Rubber	
	234	Crepe paper tape with rubber adhesive. Designed to be used in the medium temperature paint bake operation, up to 250°F (121°C) for 30 minutes.	Tan	6.0	Crepe paper	N/A	Rubber	
	235	Photographic masking.	Black	7.0	Paper	5.0	Rubber	
	250	Meets ASTM D6123M-97. Used in paint adhesion testing.	Tan	5.9	Flat stock paper	N/A	Rubber	
	253	Silicone butt splicing tape. Unique silicone treated backing	Tan	7.5	Paper	N/A	Silicone	
	255	Package sealing tape.	Tan	5.3	Paper	N/A	Rubber	
	256	Flatback masking tape for a wide variety of bundling and holding applications where a stronger paper backing is needed.	Red, white, green Ivory	6.7	Flat stock paper	N/A	Rubber	
	346	Heavy-duty protective tape.	Tan	16.7	Flat stock paper	15	Rubber	
	914	Repulable business forms, splicing.	Blue	4.0	Paper	3.0	Acrylic	
	2214	Good for holding and bundling. CID A-A883A, Type 1	Tan	5.2	Crepe paper	N/A	Rubber	
	2307	Solvent-free construction; non-critical paint masking. CID A-A883A, Type 1; PPP-T-42C, Type 1	Tan	5.2	Crepe paper	N/A	Rubber	
	2308	Good transfer resistance.	Tan	5.3	Crepe paper	N/A	Rubber	
	2364	Cost-effective, high temperature performance.	Tan	6.5	Crepe paper	N/A	S/R Blend	
	2380	High temperature. Best holding to widest variety of surfaces.	Tan	7.5	Crepe paper	N/A	N/S/R Blend	
	2393	Low holding, high temperature paint masking. Use where clean removal is a problem.	Tan	7.6	Mini-Crepe paper	N/A	Rubber	
	2517	Flatback masking tape for a wide variety of bundling and holding applications where a stronger paper backing is needed.	Tan	6.4	Flat stock paper	N/A	Rubber	
	2525	Premium splicing, holding and bundling applications.	Orange	9.5	Flat stock paper	N/A	Rubber	
	2526	Excellent adhesion and strength for textile applications.	White	9.8	Flat stock paper	N/A	Rubber	
	2693	Very aggressive holding; excellent for multi-bake paint cycles.	Tan	8.5	Mini-Crepe paper	N/A	Synthetic	
	3051	Very low tack.	White	3.6	Paper	3.3	Acrylic	
5559	Ultrathin water-contact indicator.	White	5.0	Paper	N/A	Acrylic		
9968	Repulable casting paper splicing tape.	White	4.0	Paper	3.2	Acrylic		
Polyester	222	High temperature, fine line masking tape.	White	2.4	Polyester Film	N/A	Acrylic	
	335	Low tack protective tape.	Pink	1.5	Polyester Film	0.9	Rubber	
	336	A polyester tape with a very low tack adhesive system for use as a protective tape.	Clear	1.5	Polyester Film	0.9	Rubber	

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
Polyester <i>continued</i>	396	Adhesion to low energy surfaces.	Trans- parent	4.1	Polyester	1.4	Rubber	
	630	High tack splicing, reflective tape.	Silver	3.7	Metallic polyester	1.0	Rubber	
	685	Transparent film with a green adhesive coated on the edges for holding rivets in place during processing.	Trans- parent/ green	1.7	Polyester	1.0	Rubber	
	850	Polyester film tape with acrylic adhesive. Used for splicing, holding, decorating, color-coding and sealing.	Red, White, Black, Gold, Silver, Clear	1.9	Metallic polyester	0.9	Acrylic	
	851	Performance silicone plating.	Green	3.6	Polyester	0.9	S/R Blend	
	853	Transparent polyester film tape with solvent-resistant adhesive. Used for butt splicing and tabbing applications.	Trans- parent	1.9	Polyester	0.9	Acrylic	F.A.R.
	856	Economy edge and hole reinforcing.	Trans- parent	2.0	Polyester	1.0	Acrylic	
	1278	SMOBC masking.	Blue	2.8	Polyester	0.9	Rubber Blend	
	1279	Plating tape.	Orange	4.1	Polyester	0.9	S/R Blend	
	1280	Performance silicone plating.	Red	3.6	Polyester	0.9	S/R Blend	
	3305	De-taping applications, clean room.	Trans- parent	2.7	Polyester	1.6	Rubber	
	5557	Water-contact indicator. UL-969	White	10.2	Polyester	N/A	Paper/ Acrylic	UL
	5558	Ultrathin water-contact indicator.	White	6.0	Polyester	N/A	Paper/ Acrylic	
	8402	Splicing tape. Adheres well to silicone.	Green	1.8	Polyester	0.9	Silicone	
	8403	Splicing tape. Adheres well to silicone.	Green	2.3	Polyester	1.5	Silicone	
	8411	Edge and hole reinforcing.	Trans- parent	1.5	Polyester	1.0	Acrylic	
	8412	Heavy-duty edge and hole reinforcing.	Trans- parent	6.3	Polyester	4.6	Acrylic	
	8421	Photo film splicing	White	2.5	Polyester	1.4	Rubber	
	8422	Photo film splicing.	Black	2.5	Polyester	1.4	Rubber	
	8429	Photo film splicing.	Yellow	3.2	Polyester	2.0	Rubber	
8437	Low emissivity, reflective tape.	Silver	2.0	Metallic polyester	0.9	Acrylic		

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
Polyester <i>continued</i>	8901	A high temperature polyester tape used for flashbreaker tape in composite bonding as well as in composite bagging; general purpose splicing and to splice silicone coated papers and films.	Blue	2.6	Polyester	0.9	Silicone	
	8902	Thicker version of 8901.	Blue	3.4	Polyester	2.0	Silicone	
	8905	Thicker version of 8901.	Blue	6.5	Polyester	5.0	Silicone	
	8911	A transparent, high temperature polyester tape with a silicone adhesive. Used in composite bonding, splicing and other polyester tape applications requiring transparent tape.	Trans- parent	2.7	Polyester	1.0	Silicone	
	8951	A high temperature polyester tape used for flashbreaker tape in composite bonding as well as in composite bagging; general purpose splicing and to splice silicone coated papers and films.	Blue	2.7	Polyester	1.0	Silicone	
	8952	A high temperature polyester tape used for flashbreaker tape in composite bonding as well as in composite bagging; general purpose splicing and to splice silicone coated papers and films.	Blue	3.5	Polyester	2.0	Silicone	
	8952L	A high temperature lined tape with a silicone adhesive for use as a flashbreaker tape in composite bonding, as well as in composite bagging operations.	Blue	3.5	Polyester	2.0	Silicone	
Polyimide	5413	Polyimide film tape with silicone adhesive.	Amber	2.7	Polyimide	1.0	Silicone	
	1258	Low static, clean room tape.	Amber	2.7	Polyimide	1.0	Silicone	
	5419	Low static wave solder. Meets F.A.R. 25.853(a).	Amber	2.7	Polyimide	1.0	Silicone	F.A.R.
	5433	Unique and extremely low electrostatic discharge properties.	Amber	2.7	Polyimide	1.0	Silicone	
	5563	Non-silicone, low static.	Amber	1.65	Polyimide	1.0	Acrylic	
Polypropylene	218	Polypropylene plastic film tape with rubber adhesive. A high performance film backed tape with low profile and high adhesion to achieve excellent paint line and for other masking and holding applications.	Green	4.8	Polypropylene	N/A	Rubber	
	2185	Photo album edging.	White	3.4	Polypropylene	2.7	Rubber	
PTFE <i>Slick Surface</i>	547	Pipe thread sealant.	White	3.0	PTFE	3.0	None	
	5151	A woven glass cloth impregnated with PTFE tape which provides a high temperature release surface for protection and insulation.	Lt. Brown	4.5	Glass cloth impregnated w/ PTFE	3.0	Silicone	
	5153	Thicker version of 5151.	Lt. Brown	6.8	Glass cloth impregnated w/ PTFE	5.3	Silicone	
	5180	Skived PTFE film tape used for roller wrapping and other slick surface applications.	Gray	3.5	PTFE	2.0	Silicone	
	5181	Thicker version of 5180.	Gray	6.5	PTFE	5.0	Silicone	
	5451	A woven glass cloth impregnated with PTFE tape which provides a high temperature release surface for protection and insulation.	Brown	5.6	Glass cloth impregnated w/ PTFE	3.2	Silicone	
	5453	Thicker version of 5451.	Brown	8.2	Glass cloth impregnated w/ PTFE	6.0	Silicone	

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
PTFE <i>Slick Surface continued</i>	5480	Skived PTFE film tape used for roller wrapping and other slick surface applications.	Gray	3.7	PTFE	2.0	Silicone	
	5481	Skived PTFE film tape used for roller wrapping and other slick surface applications.	Gray	6.8	PTFE	5.0	Silicone	
	5490	Extruded PTFE Film tape with silicone adhesive used in many slick surface applications.	Gray	3.7	PTFE	2.0	Silicone	
	5491	Thicker version of 5490.	Gray	6.7	PTFE	5.0	Silicone	
	5498	PTFE film tape with rubber silicone-free adhesive.	Brown	4.0	PTFE	2.0	Rubber	
Polyethylene- Ultra High Molecular Weight (UHMW-PE) <i>Slick Surface</i>	5421	Low coefficient of friction combined with abrasion resistance make this tape an effective solution for many noise and vibration problems.	Trans- lucent	6.7	UHMW-PE	5.0	Rubber	
	5423	Thicker version of 5421. Low coefficient of friction combined with abrasion resistance make this tape an effective solution for many noise and vibration problems.	Trans- lucent	11.7	UHMW-PE	10.0	Rubber	
	5425	Solvent-resistant adhesive. Low coefficient of friction combined with abrasion resistance make this tape an effective solution for many noise and vibration problems.	Trans- lucent	4.5	UHMW-PE	3.0	Acrylic	
	5430	Transparent UHMW polyethylene film tape with acrylic adhesive.	Trans- lucent	6.5	UHMW-PE	5.0	Acrylic	
	9324	Black version of 5430 Tape.	Black	7.0	UHMW-PE	5.0	Acrylic	
	9325	Thin version of 5430 Tape.	Trans- parent	5.0	UHMW-PE	3.0	Acrylic	
Vinyl	470	A conformable and abrasion resistant vinyl tape with excellent resistance to most chemicals used in typical electroplating processes.	Tan	7.1	Vinyl	6.3	Rubber	HH-T- 0025 Am 2
	471	Vinyl plastic tape ideal for color-coding, abrasion protection, decoration, sealing, patching, splicing, wrapping, and general purpose. Available in 9 colors and transparent.	Yellow, white red, black, brown, green, orange, purple, blue transparent	5.2	Vinyl	4.1	Rubber	
	472	Abrasion resistant, high temperature resistant.	Black	10.4	Vinyl	9.0	Rubber	
	477	Abrasion resistant. Tapes and seals irregular surfaces.	Trans- parent	7.2	Vinyl	6.0	Rubber	
	484	Lower adhesion than 470 Tape.	Tan	7.2	Vinyl	5.7	Rubber	
	764	A general purpose vinyl tape for use in non-critical applications such as color-coding, bundling and safety marking.	Yellow, red, white, black, blue, green, orange, gray, purple, brown, transparent	5.0	Vinyl	4.0	Rubber	
	766	A general purpose hazard marking vinyl tape for use in non-critical applications.	Black & Yellow stripes	5.0	Vinyl	4.0	Rubber	
	767	A general purpose hazard marking vinyl tape for use in non-critical applications.	Red & White stripes	5.0	Vinyl	5.0	Rubber	

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3M™ Single Coated Tapes

Material (alphabetical order)	Product	Typical Performance Characteristics/ Application Ideas	Color	Total Cal. Mils	Backing		Adhesive Type	Specs
					Material	Caliper Mils		
Vinyl <i>continued</i>	1251	General purpose, clean room tape.	White, Yellow, Transparent	5.2	Vinyl	4.1	Rubber	
	4712	Lined version of 471 for die-cutting applications.	Brown, White, Blue, Green, Yellow, Orange, Red, Black, Purple, Transparent	5.0	Vinyl	4.1	Rubber	
	4731	Electroplating. Flame retardant and weather resistant.	Purple	7.0	Vinyl	6.0	Rubber	
	4735	Vinyl plastic film tape with rubber adhesive.	Orange	5.3	Vinyl	N/A	Rubber	
	4735L	Lined version of 4735.	Orange	7.7	Vinyl	N/A	Rubber	
	4737S	High temperature, fine line masking tape.	Solid blue	5.1	Vinyl	N/A	Rubber	
	4737T	High temperature, fine line masking tape.	Translucent blue	5.1	Vinyl	N/A	Rubber	
	5700	Adhesive side printing. For lane and safety marking.	Black & White stripes	5.4	Vinyl	4.2	Rubber	
5702	Adhesive side printing. For lane and safety marking.	Black & Yellow stripes	5.4	Vinyl	4.2	Rubber		
Miscellaneous Film Tapes	215	Medium temperature, fine line masking tape. Conformable.	Blue	4.7	Plastic film	N/A	Rubber	
	480	Good chemical and solvent resistance, conformable, abrasion resistant.	Transparent	5.1	Polyethylene	3.8	Acrylic	
	481	Preservation sealing tape.	Black	9.5	Polyethylene	7.5	Rubber	
	483	Conformability, UV resistance, and clean removal for sealing end cap on metal pipes stored outdoors.	Black, Blue, Green, red, white, Yellow, Transparent	5.3	Polyethylene	3.9	Rubber	
	616	Lithographers tape.	Ruby Red	2.4	UPVC	1.6	Rubber	
	695	Polyethylene film with a rubber-strip coated along edges of tape only and tack-free center. Riveters tape.	Yellow	3.0	Polyethylene	2.0	Acrylic	
	838	Weather-resistant film. MIL-T-22085 Amend 3, Type IV. Meets F.A.R. 25.853(a).	White	3.4	Tedlar®film	2.1	Acrylic	F.A.R.
	855	Composite bonding tape.	Cream	3.2	Nylon	2.0	Rubber	
	5401	Traction tape.	Tan	9.3	Fiberglass Silicone	8.0	Silicone	
	5414	Water-soluble tape.	Transparent	2.5	PVA	1.3	Synthetic	
	5461	High friction roller tape.	White	9.1	Silicone Rubber	7.8	Rubber	
	7590	Photoelectric grade with a smooth surface sheeting and a paper liner.	Opaque	11.0	Photoelectric White	7.0	Acrylic Scotchlite™	
	7800T	Photoelectric Scanning (linerless); Designed for use as expandable code marks in automatic conveyor operations.	Medium Gray	7.0	Photoelectric Scotchlite™	7.0	Acrylic	
8555	Thicker version of 855, composite bonding tape.	Cream	6.0	Nylon	5.0	Rubber		

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3M™ Single Coated Foam Tapes

	Product Number/Color	Description	Adhesive	Approximate Thickness	Density lb/cu ft (kg/cu m)	Tensile Strength (psi (kPa))	Compression Deflection 25% psi (kPa)	Compression Set % Loss	Temperature Tolerance		
									Short-Term	Long-Term	
Urethane	4104* Natural White	<ul style="list-style-type: none"> Firm, rigid, open cell urethane foam for cushioning Allows air or gas vapors to pass through Not recommended for outdoor use 	350 Acrylic	0.250" (6mm)	12 (192)	115 (795)	4 (27.6)	8	350°F (176°C)	200°F (93°C)	
	4108 Natural White			0.125" (3mm)	16 (256)	130 (895)	6 (82.8)	8			
	4116 Natural White			0.062" (1.5mm)	18 (288)	115 (795)	12 (82.8)	12			
	Urethane	4314 Charcoal Gray	<ul style="list-style-type: none"> Soft conformable, low density foam can help seal out air, dust and light when compressed 50% Used to help damp sound and absorb vibration in electronics 	430 Acrylic	0.250" (6mm)	2 (32)	25 (170)	0.3 (2.1)	5	250°F (121°C)	150°F (66°C)
		4317* Charcoal Gray			0.375" (9.5mm)	2 (32)	25 (170)	0.3 (2.1)	5		
		4318 Charcoal Gray			0.125" (3mm)	2 (32)	25 (170)	0.3 (2.1)	5		
Vinyl	4504* Black	<ul style="list-style-type: none"> Durable, flexible, closed cell vinyl foams with excellent aging characteristics Weather resistant Can help to seal out dust, light and moisture when placed under 30% compression. Liner over PSA 	430 Acrylic	0.250" (6mm)	20 (320)	90 (620)	4 (27.6)	15	250°F (121°C)	150°F (66°C)	
	4508* Black		430 Acrylic	0.125" (3mm)	20 (320)	100 (690)	4 (27.6)	15			
	4516* Black		430 Acrylic	0.062" (1.5mm)	25 (400)	130 (895)	4 (27.6)	15			
	4714* Black		430 Acrylic	0.250" (6mm)	14 (225)	75 (515)	2 (13.8)	5			
	4718* Black		430 Acrylic	0.125" (3mm)	20 (320)	100 (690)	4 (27.6)	15			
	4726* Black		430 Acrylic	0.062" (1.5mm)	20 (320)	130 (895)	3 (20.7)	15			

* Meets requirements of UL 94HBF.

3M™ Single Coated Foil /Foam Sheets

Product Master	Description	Sheets Per Case	Sheet
4014	25 Mil Aluminum/ Urethane Foam	50	6" x 48"
		25	12" x 48"
		15	18" x 48"

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3M™ Repulpable Tapes

To achieve true quality, a tape must meet all your needs. Outstanding strength is not enough. The tape must be easy to use, easy to choose, readily available and fully repulpable. Over the past four decades, we've built our reputation as an

industry leader by being responsive to the increasingly complex needs of paper producers. Today, our customer base consists of clients who demand no less of their product than we demand of ours.

Type	Product	Color	Comments	Tape Thickness mils(mm)	Tape Structure Backing/Adhesive	Liner		Heat Resistance (F/C)	FDA Approved
						Type	Thickness mils/(mm)		
Permanent Double Coated	405	Lt. Green	Excellent for raw and starch-treated papers.	3.0 (0.08)	Tissue/Repulpable	UPVC	1.7 (0.04)	400 (200)	
	900	Blue	Recommended for LWC papers.	2.5 (0.06)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	•
	900B	Blue	Recommended for supercalendered papers.	2.5 (0.06)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	•
Permanent Single Coated	901	Lt. Green	Excellent for raw and starch-treated papers.	4.0 (0.10)	Paper/Repulpable	UPVC	1.7 (0.04)	400 (200)	
	910	Blue	Recommended for coated and uncoated papers and paperboard.	4.0 (0.10)	Paper/Repulpable	—	—	400 (200)	•
	9103	Blue	Printable, coatable backing.	4.5 (0.11)	Paper/Repulpable	Paper	2.9 (0.07)	400 (200)	•
	9114	Blue	The easiest way to make a butt splice. Printable.	4.5 (0.11)	Paper/Repulpable	Paper	2.9 (0.07)	400 (200)	•
	9960	Blue	Thinnest butt splicing tape for light weight uncoated and coated and supercalendered papers.	2.2 (0.06)	Paper/Repulpable	Paper	2.9 (0.07)	350 (180)	•
	9969	Blue/White	Very thin butt splicing/cover tape for uncoated, newsprint and most coated papers.	2.2 (0.06)	Paper/Repulpable	Paper	2.9 (0.07)	350 (180)	•
Temporary Double Coated	905	Clear	Thinnest, fiber reinforced adhesive transfer tape.	2.0 (0.05)	None/Repulpable	Paper	3.3 (0.08)	250 (120)	•
	906	Blue/White	Flying splice at the Off-Machine Coater (OMC).	3.0 (0.08)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	•
	913	Blue	Paster tape for splices at newspaper printers.	3.5 (0.09)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	
	9038	Blue/White	General purpose plus flying splice for the commercial printers and corrugators.	3.5 (0.09)	Tissue/Repulpable	Paper	3.2 (0.08)	350 (180)	•
	9069	Blue	Excellent for newsprint or directory stock.	3.5 (0.09)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	
	R3227	Blue/White	Core starting, roll closing and general purpose temporary splicing.	3.5 (0.09)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	•
	R3287	White	Heavy tissue, very high tack for core starting.	5.5 (0.14)	Tissue/Repulpable	Paper	3.2 (0.08)	400 (200)	•
Temporary Single Coated	R3127	Blue/White Kraft/Red	General purpose, excellent holding power.	4.5 (0.11)	Paper/Repulpable	—	—	400 (200)	•
	R3187	Blue/White/ Kraft/Black	General purpose ,strong repulpable backing.	7.0 (0.18)	Paper/Repulpable	—	—	400 (200)	•
Splittable Flying Splice(SFS)	R9990	Blue	Splittable flying splice (SFS) system with metalized layer for autosensing and splice detection applications.	3.5 (0.09)*	Aluminumized Paper/Repulpable	Paper	2.9 (0.07)	400 (200)	
	R9993	Blue	All in one tabbing and splicing tape for newspaper, rotogravure and non-heatset printing applications.	2.5 (0.06)*	Paper/Repulpable	Paper	2.9 (0.07)	400 (200)	
	R9996	Blue	Thinnest SFS tape for splicing applications in papermill and paper converting coating operations.	2.5 (0.06)*	Paper/Repulpable	Paper	2.9 (0.07)	400 (200)	
	R9999	Blue	Heavy duty SFS tape for flying splices on heavy papers and high tension web processing applications.	4.5 (0.12)*	Paper/Repulpable	Paper	2.9 (0.07)	400 (200)	

* Reported tape thickness is the caliper of the splice as it passes through coating and printing operations.



3M™ Protective Tape Products – Short-Term Protection

Product	Tape Structure (Backing/Adhesive)	Total Thickness mils (mm)	Adhesion to Steel oz./in. width	Tack Level	Elongation at Break %	Application Ideas
Based on ASTM Test Method:		D-3652	D-3330		D-3759	
Nominal Results						
Carpet Tapes						
2E79	Polyethylene/Acrylic	2 (0.05)	20	High	600	Automotive carpeted areas, fabric seals and headliners.
2E93EZ	Polyethylene/Acrylic	2 (0.05)	25	Very high	600	Automotive carpets, fabric seals and headliners.
2E95EZ	Polyethylene/Acrylic	2 (0.05)	35	Very high	600	Automotive carpets, fabric seals and headliners.
2E97C	Polyethylene/Acrylic	2 (0.05)	35	Very high	600	Automotive carpets, fabric seals and headliners.
2E98C	Polyethylene/Acrylic	2 (0.05)	45	Very high	600	For marine carpet only.
4193EZ	Polyethylene/Acrylic	4 (0.10)	25	Very high	600	Residential carpet tape.
5193EZ	Polyethylene/Acrylic	5 (0.13)	30	Very high	600	Residential carpet tape.
3195EZ	Polyethylene/Acrylic	3 (0.08)	25	Very high	600	Higher adhesion for treated carpet.
4195EZ	Polyethylene/Acrylic	4 (0.10)	30	Very high	600	Higher adhesion for treated carpet.
Cold Seal^{®1} Films						
3130	Polyethylene/Rubber	3 (0.08)	14*	N/A	450	Cohesive film used to package small machine parts, hand tools and literature.
4130	Polyethylene/Rubber	4 (0.10)	12*	N/A	450	Cohesive film used to package small machine parts, hand tools and literature.
5130	Polyethylene/Rubber	5 (0.13)	11*	N/A	450	Cohesive film used to package small machine parts, hand tools and literature.
Co-Extruded "A" Tapes						
2A04	Co-Extruded/Acrylic	2 (0.05)	1	Very low	600	High-gloss coated metals, glass, CRT screens.
2A05	Co-Extruded/Acrylic	2 (0.05)	2	Very low	600	High-gloss plastic laminates, mirror and glass products. For gloss painted metals.
2A10	Co-Extruded/Acrylic	2 (0.05)	2	Very low	600	Gloss decorative laminates. Smooth acrylic sheet and film. For gloss painted metals.
2A12	Co-Extruded/Acrylic	2 (0.05)	4	Low	600	Painted, gloss finish architectural building panels. Extruded, painted urethane moldings.
2A25	Co-Extruded/Acrylic	2 (0.05)	6	Moderate	600	Painted building panels. Automotive moldings and urethane fascias.
2A26	Co-Extruded/Acrylic	2 (0.05)	9	Moderate	600	Painted, embossed, metal building panels, canopies and molded fiberglass.
2A29	Co-Extruded/Acrylic	2 (0.05)	10	Moderate	600	Brushed aluminum. Textured, plastic automotive moldings. Offers excellent protection for mill finished aluminum and steel surfaces.
2A87	Co-Extruded/Acrylic	2 (0.05)	14	High	600	Matte decorative and vinyl laminates.
2A88	Co-Extruded/Acrylic	2 (0.05)	15	High	600	Matte decorative and vinyl laminates. Matte, plastic screen-printed nameplates.
2A89	Co-Extruded/Acrylic	2 (0.05)	15	High	600	Matte decorative and vinyl laminates. Matte, plastic screen-printed nameplates.
25A10	Co-Extruded/Acrylic	3 (0.08)	2	Very low	600	Specular anodized aluminum. Bright annealed or polished stainless.
25A12	Co-Extruded/Acrylic	3 (0.08)	3	Low	600	Smooth, gloss painted building panels. Premask for vinyl pinstriping, decals and emblems.
25A25	Co-Extruded/Acrylic	2 (0.05)	7	Moderate	600	Semi-gloss painted metals and plastic surfaces. Automotive moldings.
25A26	Co-Extruded/Acrylic	2 (0.05)	9	Moderate	600	Embossed, painted metal building panels. Molded fiberglass.
25A29	Co-Extruded/Acrylic	3 (0.08)	9	Moderate	600	Satin or bronzed painted aluminum and brushed finished steel and aluminum, textured plastics.
25A87	Co-Extruded/Acrylic	3 (0.08)	13	High	600	Brushed aluminum and stainless. Hand applied to cultured marble (typically dusty surface).
25A88	Co-Extruded/Acrylic	3 (0.08)	15	High	600	Matte high-pressure laminates. For matte finished automotive plastic parts.
25A89	Co-Extruded/Acrylic	3 (0.08)	15	High	600	Matte high-pressure laminates. For matte finished automotive plastic parts.
5A29	Co-Extruded/Acrylic	2 (0.05)	10	Moderate	600	Offers superior protection for mill finished aluminum and steel surfaces.

Selected tapes are available in transparent, blue, white and black/white. For information regarding available colors, contact Protective Tapes customer service at 1-800-241-2031.

* Value measured as a cohesive bond strength in units.

¹ "Cold Seal" is a registered trademark of Sealed Air Corporation.

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3M™ Protective Tape Products – Short-Term Protection

Product	Tape Structure (Backing/Adhesive)	Total Thickness mils (mm)	Adhesion to Steel oz./in. width	Tack Level	Elongation at Break %	Application Ideas
Based on ASTM Test Method:		D-3652	D-3330		D-3759	
Nominal Results						
Co-extruded Black/white Tapes						
25M26X	Co-Extruded/Acrylic	3 (0.08)	8	Moderate	600	For mill finished steel and aluminum, dull painted surfaces.
3W25X	Co-Extruded/Acrylic	3 (0.08)	5	Moderate	450	For mill finished steel and aluminum, semi-gloss painted surfaces.
3W26X	Co-Extruded/Acrylic	3 (0.08)	7	Moderate	450	For mill finished aluminum and 2B finished steel sheets and coil.
3W29X	Co-Extruded/Acrylic	3 (0.08)	8	Moderate	450	For brushed aluminum and steel sheets and coil, satin or bronzed painted metals.
3W55X	Co-Extruded/Acrylic	3 (0.08)	9	Moderate	450	Painted metal sandwich panels, painted semi-gloss aluminum and steel finishes.
Flame Retardant Tapes						
4F79	Polyethylene/Acrylic	4 (0.10)	15	High	600	Flame retardant carpet tape complies to F.A.R. 25.853 (appendix F, part 25).
Polyethylene Tapes						
2104	Polyethylene/Acrylic	2 (0.05)	1	Very low	450	Glass. CRT screens. LED, LCD screens.
2105	Polyethylene/Acrylic	2 (0.05)	2	Very low	450	Bright annealed or polished steel sheets and coils. Mirrors and glass products. LCD, CRT screens.
2110	Polyethylene/Acrylic	2 (0.05)	3	Low	450	Extruded, molded, plastic automotive trim. Gloss-finished decorative laminates.
2112	Polyethylene/Acrylic	2 (0.05)	4	Low	450	Painted gloss finish metal building panels. Premask for vinyl pinstripping and decals.
2125	Polyethylene/Acrylic	2 (0.05)	5	Moderate	450	Painted, embossed, architectural building panels. Semi-gloss laminates and acrylic sheets.
2126	Polyethylene/Acrylic	2 (0.05)	7	Moderate	450	Slightly textured plastics, steel garage doors, metal extrusions and painted building panels.
2187	Polyethylene/Acrylic	2 (0.05)	14	Moderate	450	For textured plastics and metals.
3104	Polyethylene/Acrylic	3 (0.08)	1	Very low	450	High-gloss coated metals. CRT and LCD screens.
3105	Polyethylene/Acrylic	3 (0.08)	2	Very low	450	Bright annealed or polished steel sheets and coils. Mirrors and glass products. Cell phones, windows, CRT and LCD screens.
3110	Polyethylene/Acrylic	3 (0.08)	2	Very low	450	Bright annealed or polished stainless. Gloss, painted metals.
3112	Polyethylene/Acrylic	3 (0.08)	3	Low	450	Smooth, gloss, painted building panels. Premask for vinyl pinstripping, decals and emblems.
3125	Polyethylene/Acrylic	3 (0.08)	5	Moderate	450	Cut-to-length metal sheets in fabrication, shipping and storage. Semi-gloss, painted metals and plastic surfaces.
3126	Polyethylene/Acrylic	3 (0.08)	7	Moderate	450	Embossed, painted, metal building panels. Mill-finished aluminum and stainless sheets or coils in fabrication and shipping.
3173	Polyethylene/Acrylic	3 (0.08)	4	Low	450	Premask for vinyl pinstripping, decals and lettering.
3179	Polyethylene/Acrylic	3 (0.08)	20	High	450	Nonskid fiberglass. Fabric seams and headliners. Auto ABS scuff plates.
3187	Polyethylene/Acrylic	3 (0.08)	11	High	450	Brushed aluminum and stainless. Hand applied to cultured marble (typically dusty surface).
3188	Polyethylene/Acrylic	3 (0.08)	13	High	450	Matte, high-pressure laminates. Matte plastics.
4112	Polyethylene/Acrylic	4 (0.10)	3	Low	450	Premask for vinyl decals and pinstripping. Polished stainless and specular finish anodized aluminum sheets and coils.
4125	Polyethylene/Acrylic	4 (0.10)	5	Moderate	450	Polished #3 and #4 finished stainless coils or sheets.
4126	Polyethylene/Acrylic	4 (0.10)	7	Moderate	450	Molded fiberglass or acrylic tubs and spas. Automotive applications such as: bumpers, fascias, body side molding paint protection, tail lights or window glass.
4167	Polyethylene/Acrylic	4 (0.10)	18	High	450	Textured decorative laminates and vinyl. Woodgrain laminates, matte plastics.
4179	Polyethylene/Acrylic	4 (0.10)	20	High	450	Dissimilar metals. Automotive kick plates.
4187	Polyethylene/Acrylic	4 (0.10)	13	High	450	Cultured marble and molded fiberglass. Woodgrain vinyl decorative laminates.
4188	Polyethylene/Acrylic	4 (0.10)	15	High	450	Brushed anodized aluminum. Matte plastics or high-pressure laminates.

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3M™ Protective Tape Products – Short-Term Protection

Product	Tape Structure (Backing/Adhesive)	Total Thickness mils (mm)	Adhesion to Steel oz./in. width	Tack Level	Elongation at Break %	Application Ideas
Based on ASTM Test Method:		D-3652	D-3330			D-3759
Nominal Results						
Polyethylene Tapes (continued)						
5112	Polyethylene/Acrylic	5 (0.13)	3	Low	450	Mirror-finish stainless, specular anodized aluminum. Automotive applications such as: paint mutilation, tail lights, lens covers and window glass.
5125	Polyethylene/Acrylic	5 (0.13)	3	Low	450	Painted metal, gloss finish building panels. Coated metal automotive trim.
5126	Polyethylene/Acrylic	5 (0.13)	5	Moderate	450	Mill finish aluminum and stainless coils and sheets. Molded fiberglass, polyester tubs and showers.
5187	Polyethylene/Acrylic	5 (0.13)	10	Moderate	450	Cultured marble, textured plastics, matte painted metals.
5188	Polyethylene/Acrylic	5 (0.13)	15	High	450	Cultured marble, textured plastics, matte painted metals.
8179	Polyethylene/Acrylic	8 (0.21)	15	High	450	Dissimilar metals.
Polyester Tapes						
1614	Polyester/Acrylic	1 (0.03)	2	Very low	88	High-pressure laminates, name plates, instrument panels, clock faces and cell phone windows.
1675	Polyester/Acrylic	1 (0.03)	2	Very low	88	High-pressure laminates, name plates and instrument panels.
Polypropylene Tapes						
24S56W	Polypropylene/Acrylic	3 (0.08)	9	Moderate	700	White tape for painted metals, plastic surfaces and automotive clearcoat paint finishes.
44S56W	Polypropylene/Acrylic	4 (0.10)	9	Moderate	800	White tape for painted metals, plastic surfaces and automotive clearcoat paint finishes.
64S58W	Polypropylene/Acrylic	6 (0.15)	9	Moderate	630	Use on base, clearcoat and high gloss painted surfaces. Ideal for mutilation protection.
84S58W	Polyethylene/Acrylic	8 (0.20)	6	Moderate	1000	White tape for painted metals, plastic surfaces and automotive clearcoat paint finishes.
Other Protective Tapes						
335/Pink	Polyester/Rubber	2 (0.05)	2	Very low	125	Low tack protective tape.
336/Clear	Polyester/Rubber	1.5 (0.04)	1	Very low	115	Transparent, low tack protective tape, good attachment to smooth surfaces.
346/Tan	Flat Paper Stock/Rubber	17 (0.42)	22	Very high	4	Heavy-duty protective tape.
9343/Black	Nonwoven/Acrylic	16 (0.42)	27	Very high	300	Conformable for irregular shaped parts.
UV Tapes						
2AU23B/UV	Co-extruded A	2 (0.05)	3	Low	600	For glass and window frames with a high-gloss surface, high-gloss painted metals and plastics.
2AU26B/UV	Co-extruded A	2 (0.05)	7	Moderate	600	For flat finished vinyl and aluminum window frames, flat finished painted metals and plastics.
31U23C/UV	Polyethylene/Acrylic	3 (0.08)	3	Low	450	For glass and window frames with a high-gloss surface, high-gloss painted metals and plastics.
31U26C/UV	Polyethylene/Acrylic	3 (0.08)	7	Moderate	450	For flat finished vinyl and aluminum window frames, flat finished painted metals and plastics.

Selected tapes are available in transparent, blue, white and black/white. For information regarding available colors, contact Protective Tapes customer service at 1-800-241-2031.

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3M™ Polyurethane Protective Tapes (PPT) – Long-Term Protection

Product	Tape Structure (Backing/Adhesive)	Color	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Maximum Service Temp °F (°C)	Comments
ASTM Test Method			D-3652	D-3330	D-3759			
Indoor Type								
8547	Polyurethane/Acrylic	Transparent	13 (0.33)	14 (15)	75 (1313)	500	Up to 275° F (135°C)	Flame resistant/low tack (passes NFPA 701).
8560	Polyurethane/Rubber	Transparent	14 (0.35)	18 (19.7)	76 (1313)	500	Up to 275° F (135°C)	Indoor grade with quick grab adhesive.
8561	Polyurethane/Acrylic	Transparent	14 (0.35)	62 (67)	77 (1313)	500	Up to 275° F (135°C)	Indoor grade.
8616	Polyurethane/Acrylic	Transparent	12	82 (90)	32 (560)	500	Up to 200°F (93°C)	Excellent bond to plasticized vinyl's.
8617	Polyurethane/Rubber	Transparent	12	105 (110)	32 (560)	500	Up to 150°F (65°C)	Used as a patch on canvas, rubber, leather, and as a fabric joining tape.
8686	Polyurethane/Flame Ret.	Transparent	6	23 (25) Aluminum	32 (560)	500	Up to 150°F (65°C)	Meets FAR 25.853. low tack adhesive.
Outdoor Type								
8663	Polyurethane/Acrylic	Transparent	18 (0.46)	100 (110)	117 (2049)	500	Up to 275° F (135°C)	Excellent as a moisture barrier.
8671	Polyurethane/Acrylic	Transparent	14 (0.35)	86 (94)	80 (1400)	500	Up to 275° F (135°C)	Durable erosion protection with paper liner.
8672	Polyurethane/Acrylic	Transparent	8 (0.25)	79 (83)	40 (700)	500	Up to 275° F (135°C)	Thin durable erosion protection.
8673	Polyurethane/Acrylic	Transparent	14 (0.35)	86 (94)	80 (1400)	500	Up to 275° F (135°C)	Durable erosion protection with best UV stability. RESTRICTED AVAILABILITY OVER 12" WIDE.
8674	Polyurethane/Acrylic	Transparent	8 (0.20)	60 (66) Aluminum	48 (842)	500	Up to 200°F (93°C)	Durable erosion protection with best UV stability. Dual liner. RESTRICTED AVAILABILITY OVER 12" WIDE.
8681HS	Polyurethane/Acrylic	Matte Clear Military Gray	14 (0.35)	95 (104)	87 (1524)	500	Up to 275° F (135°C)	Durable erosion protection with high shear adhesive.
Preformed Boots	Polyurethane/Acrylic	Multiple Options	14-41	All based on input film		500	Up to 200°F (93°C)	Over 500 preformed boot shapes are available. www.3M.com/Boots .

[†]Meets ASTN D6123/Db123M-97 *Up to 30 minutes **Up to 60 minutes

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3M™ EMI Shielding and Electrical Tapes

Backing Material	Product	Typical Performance Characteristics	Total Thickness (mils)	Adhesive Type	Master Size	Specs
Aluminum Foil	1120	For EMI shielding, static charge draining, grounding. Good for cable wrap. Easily die-cut.	4.0	Acrylic conductive	27" x 36 yd	UL
	1170	For EMI shielding, static charge draining, grounding. Easily die-cut.	3.2	Acrylic conductive	23" x 18 yd	UL
	1267	For EMI shielding, static charge draining, grounding. Solderable and easily die-cut.	5.0	Acrylic nonconductive	23" x 18 yd	UL
	AL-25BT	For EMI shielding, static charge draining, grounding. Easily die-cut.	2.4	Acrylic conductive	19.68" x 21.8 yd	UL
	AL-25DC	Double coated version of AL-25 BT.	3.3	Acrylic conductive-both sides	19.68" x 43.6 yd	
	AL-50BT	For grounding and EMI shielding in equipment, components, and shielded rooms.	3.1	Acrylic conductive	39.76" x 43.6 yd	UL
Aluminum Foil/ Polyester Film	AL-35FR	Foil backing laminated with polyester film. solvents and oils. Easily die-cut. Good resistance to oxidation.	2.4	Acrylic conductive	39.37" x 32.7 yd	UL
	AL-36FR	Same as AL-35FR.	2.4	Acrylic conductive	19.68" x 54.5 yd	UL
	AL-36NC	Same as AL-35FR.	2.2	Acrylic nonconductive	19.68" x 54.5 yd	
	AL-37BLK	Foil backing laminated with polyester film. Matte surface finish. Good electrical insulation, resistance to oxidation, solvents and oils. Easily die-cut.	2.8	Acrylic conductive	9.84" x 21.8 yd	UL
	AL-40BLK	Same as AL-37BLK with glossy surface finish.	2.8	Acrylic conductive	9.84" x 21.8 yd	UL
Antistatic Films	40	Antistatic tape generates less than 50 volts on unwind.	2.2	Acrylic	48" x 100 yds	
	40CL	General use utility tape for electronic components and assemblies, 1-mil clear polyester film backing.	2.2	Antistatic polymer conductive	24" x 100 yd	
	40PR	General use utility tape for electronic components and assemblies, 1-mil clear polyester film backing with preprinted static symbol.	2.2	Antistatic polymer conductive	24" x 100 yd	
Copper Foil	1125	For EMI shielding on a wide range of electronic applications. Easily die-cut.	3.5	Acrylic nonconductive	24" x 36 yd	UL
	1126	FOR EMI shielding, static charge draining when grounded. Easily die-cut.	3.5	Acrylic conductive	24" x 36 yd	MIL
	1181	FOR EMI shielding, static charge draining, grounding. Easily die-cut.	2.6	Acrylic conductive	23" x 18 yd	UL
	1182	Typically used to bond two surfaces, both physically and electrically. Also can provide EMI shielding, static charge draining, grounding. Easily die-cut	3.5	Acrylic conductive - both sides	23" x 18 yd	UL
	1183	Oxidation resistant for long-term EMI shielding, static charge draining, grounding. Solderable and easily die-cut.	2.6	Acrylic conductive	23" x 18 yd	UL
	1194	For EMI shielding, static charge draining, grounding. Easily die-cut.	2.6	Acrylic nonconductive	23" x 36 yd	UL
	1245	For EMI shielding, static charge draining, grounding, solderable and easily die-cut.	4.0	Acrylic nonconductive	23" x 18 yd	UL
	1345	Embossed tin-plated copper foil. Oxidation resistant for long-term EMI shielding, static charge draining, grounding.	4.0	Acrylic nonconductive	23" x 18 yd	UL
	2245	Same as 1245	4.0	Acrylic nonconductive	19.68" x 21.8 yd	
	3245	Reverse embossed. For EMI shielding, static charge draining, grounding. Solderable and easily die-cut.	5.9	Acrylic conductive	19.68" x 21.8 yd	UL

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3M™ EMI Shielding and Electrical Tapes

Backing Material	Product	Typical Performance Characteristics	Total Thickness (mils)	Adhesive Type	Master Size	Specs
Epoxy Film	1	Excellent handling properties, high dielectric strength, solvent and flagging resistant; for use as an outer wrap on wrap and fill capacitors, coil cover, interlayer insulation and wire harness. Printable.	3.5	Acrylic	23.75" x 100 yd	UL
	10	Thermosetting, flame retardant, no liner. Tough, conformable, resistant to solder damage, puncture resistant, good electrical properties, good handling properties. For use as coil cover, anchor, harnessing, banding and as core, layer and crossover insulation.	5.0	Rubber	15.5" x 100 yd	UL
	20	Reinforced, white acrylic adhesive, flame retardant, no liner, printable.	5.0	Acrylic	15.5" x 100 yd	UL
Epoxy Film / Aluminum Foil	AL-10S	Softened aluminum foil with flame-retardant film on one side. Excellent EMI shielding for PCBs and assemblies. Lightweight, flexible and easily die-cut.	7.8	none	18.5" x 27.25 yd	UL
	AL-1010S	Thicker version of AL-10S.	13.8	none	18.5" x 27.25 yd	UL
Epoxy Film / Copper Foil	CU-10S	Softened copper foil with flame-retardant film on one side. Excellent EMI shielding for PCBs and assemblies. Lightweight, flexible and easily die-cut.	6.7	none	18.5" x 27.25 yd	UL
	CU-1010S	Softened copper foil. Excellent EMS shielding for PCBs and assemblies. Lightweight, flexible and easily die-cut.	11.8	none	18.5" x 27.25 yd	UL
Glass Cloth	27	Rubber adhesive, thermosetting, printable, no liner. Edge-tear resistant, conformable, abrasion resistant.	7.0	Rubber	24.5" x 100 yd	UL
	69	Silicone adhesive, thermosetting, printable, no liner. Edge-tear resistant, conformable, high temp flame-retardant adhesive.	7.0	Silicone	23.75" x 100 yd	UL
	79	Edge-tear resistant, conformable, solvent-resistant. For use as coil cover, anchor, and as core, layer and crossover insulation. Printable.	7.0	Acrylic	24.25" x 100 yd	UL
Metallized Cloth	2191FR	Lightweight, conformable, oxidation-resistant and high strength for EMI shielding and grounding. Easily die-cut.	5.5	Acrylic conductive	19.68" x 21.8 yd	UL
	AG-2300	Same as 2191FR.	4.3	Acrylic conductive	39.37" x 54.5 yd	UL
	AU-2190	Same as 2191FR.	4.3	Acrylic conductive	27.55" x 27.25 yd	UL
	CN-3190	Thicker version of 2191FR.	7.0	Acrylic conductive	41.3" x 54.5 yd	UL
	X-7001	Typically used to bond two surfaces both physically and electrically. Can also provide EMI shielding, static charge draining and grounding.	4.3	Acrylic conductive	10.24" x 10.9 yd	UL
Polyimide Film	92	Tough, thin, puncture-resistant film designed for high-temperature application. For insulating and motor applications.	3.0	Silicone	12.5" x 100 yd	UL
	1093	For high temperature masking applications and DC/fractional motor applications.	2.5	Silicone	16" x 36 yd	UL
	1205	Solvent-resistant, tough, thin, puncture-resistant film designed for high-temperature applications. Good cover layer for flexible circuits and for insulating applications.	3.0	Acrylic	12.5" x 100 yd	UL
	1206	For high temperature transformer applications where silicone cannot be used.	2.2	Acrylic	16" x 36 yd	UL

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3M™ EMI Shielding and Electrical Tapes

Backing Material	Product	Typical Performance Characteristics	Total Thickness (mils)	Adhesive Type	Master Size	Specs
Polyester Film	5	Clear, acrylic adhesive, no liner. Solvent-resistant for use in coil and capacitor holding applications.	2.5	Acrylic	24" x 100 yd	UL
	44	Reinforced mat, rubber adhesive. Thermosetting, no liner.	5.5	Rubber	23.5" x 100 yd	UL
	54	Rubber adhesive, thermosetting, no liner. Used in fine wire coils where magnet wire serves to color code.	2.5	Rubber	22.5" x 100 yd	UL
	55	Thermosetting, no liner. Edge-tear, puncture and abrasion resistant for use as coil cover, lead pad and core, layer and crossover insulation.	7.5	Rubber	23.5" x 100 yd	UL
	56	Thermosetting, no liner. For use as layer insulation and coil cover in 130°F applications.	2.3	Rubber	15.5" x 100 yd	UL
	57	Thermosetting, no liner. Use as a coil cover, layer insulation and capacitor wrap where higher electrical strength is desirable.	3.3	Rubber	24" x 100 yd	UL
	58	Use as a coil cover, layer insulation and capacitor wrap where higher electrical strength is desirable.	3.3	Rubber	15.5" x 100 yd	UL
	74	Conformable. Provides good electrical strength for coil applications where space is at a premium.	0.8	Rubber	15.5" x 100 yd	UL
	75	Thermosetting, lined. For use in bonding applications requiring a positive insulation barrier.	3.8	Rubber	15.5" x 100 yd	UL
	1318-1	1-mil film; excellent flagging and solvent resistance. For use as an outer wrap on capacitors and coils; printable. Available in yellow, white and black.	2.5	Acrylic	24" x 100 yd	UL
	1318-2	Same as 1318-1 but with 2-mil film.	3.3	Acrylic	24" x 100 yd	UL
	1350F-1	1-mil film with flame-retardant adhesive. Excellent flagging and solvent resistance. For use as an outer wrap on capacitors and coils; printable. Available in yellow, white and black	2.5	Acrylic	24" x 100 yd	UL
	1350F-2	Same as 1350-1 but with 2-mil film.	3.3	Acrylic	24" x 100 yd	UL
	1350T-1	1.5-mil, triple-layer, polyester film with flame-retardant acrylic adhesive. Excellent flagging and solvent resistance, with good wet grab and smooth, even unwind for use on automated equipment.	3.0	Acrylic	24" x 100 yd	UL
	1351-1	1-mil film with flame-retardant acrylic adhesive. Excellent flagging and solvent resistance. For use as inner layer and outer wrap insulation on coils. Smooth, even unwind for use on automatic equipment. Available in yellow and white.	2.5	Acrylic	24" x 100 yd	UL
	1351-2	Same as 1351-1 but with 2-mil film.	3.0	Acrylic	24" x 100 yd	UL
1351T-1	Same as 1350T-1 but available in yellow and white.	3.0	Acrylic	24" x 100 yd	UL	
Polyester Film/ Filament Reinforced	46	Good tensile strength and edge-tear resistance. For use in end-turn taping.	7.0	Rubber	23" x 100 yd	UL
	1276	Solvent-resistant, high shear strength adhesive. Good tensile strength for holding in oil-filled transformer applications.	9.0	Acrylic	23" x 100 yd	
	1339	Solvent-resistant, high shear strength adhesive. Good tensile strength and edge-tear resistance; for holding applications.	6.5	Acrylic	23" x 100 yd	UL

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3M™ EMI Shielding and Electrical Tapes

Backing Material	Product	Typical Performance Characteristics	Total Thickness (mils)	Adhesive Type	Master Size	Specs
Paper	12	For banding coils and for cover on bobbin-wound coils.	5.5	Rubber	23.25" x 100 yd	
	16	Conformable; for use as coil cover on bobbin-wound coils.	9.0	Rubber	23.25" x 100 yd	
PTFE Film	60	Thermosetting, no liner. Use on high temperature coils, capacitors and wire harnesses.	4.0	Silicone	13.5" x 100 yd	UL
	61	Thicker version of 60.	7.0	Silicone	13.5" x 100 yd	UL
	62	Thermosetting, printable. Better bonding of resins and varnishes.	4.0	Silicone	13.5" x 100 yd	UL
	63	Solvent-resistant adhesive for use where chemical properties are more important than temperature resistance. No liner.	3.5	Acrylic	13.5" x 100 yd	UL
Vinyl	22	Heavy-duty insulation designed for general purpose use where greater mechanical strength and abrasion resistance are required.	10.0	Rubber	N/A	UL
	33	Provides moisture-tight electrical and mechanical protection; good resistance to abrasion, moisture, alkalis, acids and varying weather conditions (including ultraviolet exposure).	7.0	Rubber	N/A	UL
	33+	All-weather vinyl insulating tape; conformable for cold weather applications. Excellent resistance to abrasion, moisture, alkalis, acids, UV rays and weather. Thicker for quicker buildup.	7.0	Rubber	N/A	UL
	35	Color-coding tape available in 9 fade-resistant colors. Abrasion and weather resistant. For use in phase identification, color-coding leads and piping systems, and for marking safety areas. Resistant to moisture, alkalis, acids and copper corrosion.	7.0	Rubber	N/A	UL
	88	All-weather vinyl insulating tape. Conformable for cold weather applications. Excellent resistance to abrasion, moisture, alkalis, acids, and copper corrosion.	7.0	Rubber	N/A	UL
	1710	Good quality, economical general purpose insulating tape. Good resistance to abrasion, moisture, alkalis, acid, copper corrosion and varying weather conditions (including ultraviolet).	7.0	Rubber	N/A	UL
Magnetic / Polymer Film	1380	Excellent high magnetic shielding at low frequency. Soft magnetic sheet sandwiched between layers of film. Thin, flexible, lightweight and easily die-cut.	11.8	Rubber	460mm x 610mm	
Mesh and Steeving	DS-5	EMI mesh sleeves for cables and harnesses. Excellent strain relief and heat stability, flexible, oxidation resistant. Solderable.	5.0	None	100M	UL
	DS-7		7.0	None	100M	
	DS-10		10.0	None	100M	
	DS-14		14.0	None	100M	
	DS-ME		5.0	None	200M	
	DS-MG		7.0	None	200M	
	DS-MJ		10.0	None	200M	
	DS-MN		14.0	None	200M	
	FS-30		30.0	None	50M	
	FS-37		37.0	None	50M	
	FS-D30		30.0	None	50M	
	FS-D37		37.0	None	50M	
Absorbing Materials	AB2020	Silicone rubber with magnetic filler. EMI absorbing can suppress radiated noise in broadband frequency.	.27mm	Acrylic	300mm x 210mm	
	AB2025		.32mm	Acrylic	300mm x 210mm	
	AB2050		.58mm	Acrylic	300mm x 210mm	
	AB2080		.88mm	Acrylic	300mm x 210mm	
	AB2100		1.08mm	Acrylic	300mm x 210mm	
	AB2120		1.28mm	Acrylic	300mm x 210mm	
	AB2150		1.58mm	Acrylic	300mm x 210mm	

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Reclosable Fasteners



When your customer's product requires multiple openings and closings, 3M reclosable fasteners offer choices to help improve product appearance and performance, and save production time. These fasteners eliminate holes, snap caps, fastener heads, and protrusions for clean lines and sleek profiles in many applications.

Select adhesive or plain-backed versions.

• 3M™ Scotchmate™ Reclosable Fasteners –
Thousands of easy openings and closings

When the two sides are pressed together, hundreds of stiff hooks mesh with pliable loops for quick closure, just pull apart to open.

• 3M™ Dual Lock™ Reclosable Fasteners –
Hundreds of closures with greater holding power

When the two sides are pressed together, hundreds of mushroom-shaped stems interlock with a “snap” announcing the fastener is engaged. Compared to hook and loop, tensile strength is up to 5x greater.



3M™ Scotchmate™ Reclosable Fasteners

	Product Number	Product Type	Material	Closure Life	Adhesive Type	Liner	Engaged Thickness ¹ Inches (mm)	Temperature Performance ² Wt. in grams Temp: °F (°C)	Comments
Acrylic Adhesive	SJ3571 SJ3572	Loop Hook	Nylon	5,000+	High temperature	D, F	0.15 (3.8)	1,000g 200°F (93°C)	Certified to GM3618M and GM2743M Type II. Loop available with strong splice providing continuous product and liner when removed from roll.
	SJ3546 SJ3547	Hook Loop	Nylon	5,000+	Medium temperature	G	0.15 (3.8)	500g 180°F (82°C)	General purpose acrylic adhesive which bonds to a variety of surfaces.
	SJ3576 SJ3577	Hook Loop	Polyester	1,000+	High temperature	D	0.15 (3.8)	1,000g 200°F (93°C)	Excellent for outdoor or humid conditions. Certified to GM 3618M.
	SJ3522 SJ3523	Hook Loop	Nylon	5,000+	Plasticizer resistant	B	0.15 (3.8)	500g 158°F (70°C)	Bonds well to many flexible plasticized vinyls, prevents adhesive oozing with aging.
Flame-resistant Adhesive	SJ3518FR SJ3519FR	Loop Hook	Flame resistant nylon	5,000+	Synthetic rubber	A	0.15 (3.8)	500g 100°F (38°C)	Flame resistant (meets FAR 25.853). Meets Boeing BMS 8-285G, Type III, Class 1.
	SJ3586FR SJ3587FR	Hook Loop	Flame resistant polyester	1,000+	Synthetic rubber	A	0.17 (4.3)	500g 100°F (38°C)	Good for outdoor or high humidity conditions. Flame resistant (meets FAR 25.853). Meets Boeing BMS 8-285G, Type IV, Class 1.
Synthetic Rubber Adhesive	SJ3532N SJ3533N	Hook Loop	Nylon	5,000+	Synthetic rubber	C	0.15 (3.8)	500g 120°F (49°C)	Good adhesive performance at economic value.
	SJ3526N SJ3527N	Hook Loop	Nylon	5,000+	Synthetic rubber	A, F	0.15 (3.8)	500g 100°F (38°C)	One roll (1" x 4.9 yd.) each of SJ3526N and SJ3527N, order MP3526N/27N. Paper liner product ordered as SJ3526NP or SJ3527NP.
	SJ3530	Hook	Nylon	5,000+	Synthetic rubber	C, F	0.15 (3.8)	500g 90°F (32°C)	SJ3530FS has a strong splice providing continuous product and liner when removed from the roll. Paper liner product ordered as SJ3530P.
	SJ3531	Loop				C			
Plainback (No adhesive)	SJ3401 SJ3402	Loop Hook	Nylon	5,000+	None	None	0.13 (3.3)	1,000g 220°F (104°C)	Certified to GM2743M Type II. One roll (1" x 4.9 yd.) each of SJ3401 and SJ3402. Order MP3401/02. Sew-on.
	SJ3418FR SJ3419FR	Loop Hook	Flame resistant nylon	5,000+	None	None	0.13 (3.3)	1,000g 220°F (104°C)	Flame resistant (meets FAR 25.853). Certified to Boeing BMS 8-285G, Type II, Class 2, Sew-on.
	SJ3476 SJ3477	Hook Loop	Polyester	1,000+	None	None	0.13 (3.3)	1,000g 220°F (104°C)	Excellent for outdoor or high humidity conditions. Sew-on.
	SJ3486FR SJ3487FR	Hook Loop	Flame resistant polyester	1,000+	None	None	0.13 (3.3)	1,000g 220°F (104°C)	Flame resistant (meets FAR 25.853). Meets Boeing BMS 8-285G, Type IV, Class 2. Good for outdoor or high humidity conditions. Sew-on.
3M™ Scotchmate™ Thin Reclosable Fasteners									
Acrylic PSA	SJ3506 SJ3507	Hook Loop	Polypropylene Polyester	<25	Acrylic	E	0.04 (1.0)	500g 120°F (49°C)	Available in white. Thin profile with high shear strength.
	SJ3000	Back to Back Hook and Loop	Polypropylene Polyester	<25	None	None	0.06 (1.5)	500g 120°F (49°C)	Available in red and black. Good for bundling and cable ties.

Standard colors: Nylon - black, white and beige; Polyester - black and olive. Maximum widths are 4", except for 3M™ Scotchmate™ Reclosable Fasteners SJ3506 and SJ3507 which are available in 6" widths. All products come in 50 yard rolls.

Liners:

- A - White 3 mil polyethylene film printed with "3M™ Scotchmate™" in red.
- B - Clear 3.5 mil polyolefin film with no printing.
- C - Yellow 3.0 mil polyethylene film with no printing.
- D - Clear 4.0 mil polypropylene film with white embossed 3M logo.
- E - Brown 83# PCK liner printed with "3M™" in green. Good for diecutting directly against liner.
- F - Brown 83# PCK liner with no printing. Good for die-cutting directly against liner.
- G - Silicone-treated polyolefin with 3M logo embossed.

Footnotes: 1) Engaged thickness is for hook and loop with the same backcoating engaged to each other. Any of these 3M™ Scotchmate™ Reclosable Fasteners also be engaged with 3M™ Dual Lock™ Reclosable Fasteners providing a quick grab closure with high strength and limited cycle life. 2) Able to support indicated weight in a 1 in² overlap system static shear to aluminum for 10,000 minutes, at indicated temperature.

Note: This information should be considered representative only, for help in narrowing the list of possible fasteners for further and more detailed evaluation, and should not be used for specification purposes. User is responsible for determining whether the 3M product is fit for the desired end use. Refer to specific product technical datasheets for more detailed product performance information.



3M™ Dual Lock™ Reclosable Fasteners

	Product Number	Product Type ¹	Color	Backcoating ² Adhesive	Liner	Engaged Thickness ³ Inches (mm)	Temperature Performance ⁴ Wt. in grams (Temp: °F/°C)	Comments
Lead Acrylic PSA	SJ3552	170	Black	White acrylic	D	0.23 (5.7)	1,000g 200°F (93°C)	Conformable, tacky adhesive adheres better to slightly textured or irregular surfaces. SJ3552V is packaged for clean room use. One roll (1" x 4.9 yd.) each of SJ3551 and SJ3552 can be ordered as MP3551/3552.
	SJ3550	250						Product with high strength Scotchmate splice is SJ3550SM. SJ3550V is packaged for clean room use.
	SJ3551	400						One roll (1" x 4.9 yd.) each of SJ3551 and SJ3552 can be ordered as MP3551/3552.
	SJ3562	170	Clear	Clear acrylic	D	0.23 (5.7)	1,000g 200°F (93°C)	Translucent fastener with aggressive, tacky adhesive for general bonding to most medium and high energy surfaces.
	SJ3560	250						Two rolls (1" x 4.9 yd.) of SJ3560 can be ordered as MP3560.
	SJ3561	400						Product with continuous liner and product splice is SJ3560FS.
3M™ Acrylic Pressure Sensitive Adhesive (PSA)	SJ3773	170	Black	Clear acrylic	B	0.16 (4.1)	500g 120°F (70°C)	Thin clear acrylic adhesive that bonds well to low surface energy substrates.
	SJ3782	250						
	SJ3787	250	Black	Gray acrylic	C	0.18 (4.6)	1,000g 158°F (70°C)	Bonds well to most substrates, except low surface substrates. Certified to the requirements of Daimler Chrysler PF-8858, Ford WSB MI 5P35 Type III. Certified to Ford WSB M15P35 Type III
	SJ3785	400						
	SJ3534	250	Black	Clear acrylic	D	0.18 (4.6)	1,000g 200°F (93°C)	Aggressive, tacky adhesive for general bonding to most medium and high energy surfaces, providing for an "all black" look.
	SJ3535	400						
	SJ3552CF	170	Black	Clear acrylic	D	0.23 (5.7)	1,000g 200°F (93°C)	Aggressive, tacky adhesive for general bonding to most medium and high energy surfaces, providing an "all black" look.
	SJ3550CF	250						Similar to SJ3534 but engaged thickness is 0.05" (1.1 mm) thicker.
	SJ3551CF	400						Similar to SJ3535 but engaged thickness is 0.05" (1.1 mm) thicker.
	SJ3752	170	Black	White acrylic	C	0.23 (5.7)	1,000g 200°F (93°C)	Conformable, tacky adhesive for general bonding. Adheres better to slightly textured or irregular surfaces. Certified to GM3618M, Daimler Chrysler PF-8858, Ford WSB M15P35 Type III.
	SJ3781	250						Certified to GM3618M, Daimler Chrysler PF-8543, PF-8858, Ford WSB M15P35 Type III.
	SJ3751	400						Product with continuous liner and product splice is SJ3781FS. Certified to GM3618M, Daimler Chrysler PF-8543, PF-8858, Ford WSB M15P35 Type III.
	SJ3554	170	Black	Gray acrylic	D	0.24 (6.1)	1,000g 200°F (93°C)	The adhesive looks black when attached to and viewed through transparent or translucent substrates. Offers improved adhesion to high energy surfaces.
	SJ3553	400						
	SJ3244	170	Black	Gray acrylic	E	0.24 (6.1)	1,000g 120°F (49°C)	Good adhesion to low surface energy substrates.
	SJ3245	250						
	SJ3246	400						
	SJ3777	400	Black	White acrylic	C	0.24 (6.1)	1,000g 158°F (70°C)	Conformable, tacky adhesive for general bonding. Adheres better to slightly textured or irregular surfaces.
	SJ3788	400	Black	Gray acrylic	C	0.27 (6.9)	1,000g 158°F (70°C)	Conformable, tacky adhesive for general bonding. Adheres better to slightly textured or irregular surfaces.
	SJ3756	170	Black	White acrylic	C	0.31 (7.9)	1,000g 158°F (70°C)	Firm, thick adhesive for best adhesion to smooth high surface energy substrates. Good for large gaps between joined substrates. Certified to GM3618M, Ford WSB M15P35 Type III. Standard roll length is 45 yards.
SJ3789	250							
SJ3757	400							
SJ3758	250	Black	White acrylic	C	0.40 (10.2)	750g 140°F (60°C)	Conformable, thick adhesive for filling large gaps between joints. Standard roll length is 36 yards.	

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



3M™ Dual Lock™ Reclosable Fasteners

	Product Number	Product Type ¹	Color	Backcoating ² Adhesive	Liner	Engaged Thickness ³ Inches (mm)	Temperature Performance ⁴ Wt. in grams (Temp: °F/°C)	Comments
Lead Synthetic Rubber PSA	SJ3542	170	Black	Synthetic rubber	A	0.23 (5.7)	500g 120°F (49°C)	For indoor use or attachment to low surface energy substrates. One roll (1" x 4.9 yd.) each of SJ3541 and SJ3542 can be ordered as MP3541/3542. SJ3542V is packaged for clean room use. SJ3540V is packaged for clean room use. One roll (1" x 4.9 yd.) each of SJ3541 and SJ3542 can be ordered as MP3541/3542. SJ3541V is packaged for clean room use.
	SJ3540	250						
	SJ3541	400						
Nonwoven	SJ3754	170	Black	White non woven	None	0.35 (8.9)	1,000g 200°F (93°C)	Certified to Ford WSB M15P35 Type V.
	SJ3223	250						
	SJ3753	400						
	SJ3543	250	Clear	Product appears white.				
No adhesive coating	SJ3742	170	Black	None	None	0.15 (3.9)	1,000g 200°F (93°C)	For attachment to fabrics via sewing, or to wood and similar substrates using staples. Certified to FMVSS 302, Ford WSB M15P35 Type IV.
	SJ3780	250						
	SJ3741	400						
	SJ3462	170	Clear	None	None	0.15 (3.9)	1,000g 200°F (93°C)	For attachment to fabrics via sewing, or to wood and similar substrates using staples. Excellent UV resistance in a translucent product, allowing substrate color to be easily seen through the fastener.
	SJ3460	250						
	SJ3461	400						
	SJ3799	170	Black	Polypropylene	None	0.23 (5.7)	1,000g 200°F (93°C)	For ultrasonic bonding to polypropylene. Certified to FMVSS 302, Ford WSB M15P35 Type IV.
	SJ3768	250						
	SJ3766	400						
	SJ3481	400	Black	Polypropylene	None	0.35 (8.9)	1,000g 200°F (93°C)	Rigid backing for mechanical attachment (screws, rivets, etc.). Only available in 4-foot strips. Certified to FMVSS 302.
3M™ Dual Lock™ Low Profile Reclosable Fasteners								
3M™ Acrylic PSA	SJ4570	705	Clear	Clear acrylic	F	0.10 (2.5)	500g 158°F (70°C)	Thin adhesive bonds well to low surface energy substrates. One roll (5/8" x 10feet) of SJ4570 can be ordered as MP4570.
	SJ4575	705	Black	Clear acrylic	F	0.10 (2.5)	500g 158°F (70°C)	Black, bonds well to LSE substrates.
	SJ4580	705	Clear	Clear acrylic	C	0.12 (3.0)	1,000g 200°F (93°C)	Aggressive, tacky adhesive for general bonding to most medium and high energy surfaces. Excellent for outdoor and high humidity conditions. Certified to Ford WSB M15P35 Type III.

- Linings:**
- A - White 5.0 mil (0.13 mm) thick polyolefin with silicone release coating
 - B - Brown 83# polykraft liner printed with "3M™" in green. Good for diecutting directly against liner.
 - C - Red 4.5 mil (0.11 mm) thick polyolefin with no silicone release coating
 - D - Clear 4.0 mil (0.10 mm) thick polyolefin with silicone release coating
 - E - White 5.0 mil (0.13 mm) thick polyethylene with silicone release coating
 - F - Brown 83# polykraft liner printed with "3M™ Dual Lock™" in green. Good for diecutting directly against liner.

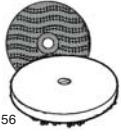
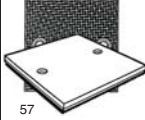


- Footnotes:**
- 1) Type 400 is not recommended to be engaged to other type 400 fasteners. As well, type 170 should not be engaged with type 170.
 - 2) Acrylic PSAs are best suited for outdoor or high humidity applications for medium to high energy surfaces.
 - 3) Engaged thickness is for products with the same backcoating. You can mix products with different backcoatings to obtain an even greater variety of engaged thicknesses. Any of these 3M™ Dual Lock™ Reclosable Fasteners can be engaged with 3M™ Scotchmate™ Reclosable Fasteners providing a quick grab closure with high strength and limited cycle life.
 - 4) Able to support indicated weight in a 1 sq. in.² system static shear for 10,000 minutes, at indicated temperature.

Notes:
Suggest 4 square inches of fastener per pound of load as a starting point for evaluation of long term performance. Suggest type 250 engaged to type 250 as a starting point for evaluations. Tensile strength increases in the following order: 170/250 < 250/250 < 170/400 < 250/400. Maximum widths are 6". All products available on 50 yard rolls except 3M™ Dual Lock™ Reclosable Fasteners SJ3756, SJ3789 and SJ3757 which are 45 yards and SJ3481 which comes in four foot strips.

This information should be considered representative only, for help in narrowing the list of possible fasteners for further and more detailed evaluation, and should not be used for specification purposes. User is responsible for determining whether the 3M product is fit for the desired end use. Refer to specific product technical datasheets for more detailed product performance information.




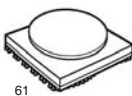

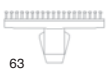

3M™ Dual Lock™ - Piece Parts

	Product Number	Product Type ¹	Dimensions ² (length x width) or diameter for circular parts inch (mm)	Functional Size/Area square inches (square cm)	Engaged Thickness ³ inches (mm)	Counter- bored hole diameter inches (mm)	Through hole diameter (mm)	Spacing (on centers) between holes inch (mm)	Comments Temperature Range from -20°F to 250°F (-29°C to 121°C)	
Circle with a counterbored center hole										
 56	SJ3251	250	1 1/8" (28.5)	0.88 (5.68)	0.323 (8.20)	0.38 (9.5)	0.19 (4.9)	-	Attach using screws, rivets, etc. Circular profile reduces chance for edge lift.	
	SJ3755	250		0.91 (5.87)	0.323 (8.20)	0.31 (7.9)	0.16 (4.1)	-		
	SJ3762	400		0.91 (5.87)	0.288 (7.31)	0.31 (7.9)	0.16 (4.1)	-		
	SJ3263	250	13/16" (20.6)	0.44 (2.84)	0.288 (7.31)	0.31 (7.9)	0.16 (4.1)	-		
	SJ3763	400		-	-	-	-			
	SJ3235	400	13/16" (20.6)	0.42 (2.71)	0.288 (7.31)	0.35 (9.0)	0.16 (4.1)	-		
	SJ3465	400	9/16" (14.3)	0.17 (1.10)	0.288 (7.31)	0.31 (7.9)	0.16 (4.1)	-		
Circle with no hole										
	SJ3238	250	1 1/8" (28.6)	.99 (6.39)	0.323 (8.20)	-	-	-		
Rectangle with two counterbored holes										
 57	SJ3252	400	1.5" x 1.5" (38.1 x 38.1)	2.08 (13.4)	0.288 (7.31)	0.33 (8.3)	0.16 (4.2)	1" (25.4)		
	SJ3261			2.11 (13.6)	0.288 (7.31)	0.29 (7.5)	0.14 (3.6)	1" (25.4)	15 mils (0.4 mm) thicker than SJ3767.	
	SJ3767			0.273 (6.93)	0.29 (7.5)	0.14 (3.6)	1" (25.4)	15 mils (0.4 mm) thinner than SJ3261.		
Rectangle with no holes										
 58	SJ3204	250	1" x 1" (25.4 x 25.4)	1.0 (6.45)	0.288 (7.31)	-	-	-		
	SJ3481	400	4 ft x 1" or 2" (1.22 m x 25.4 or 50.8)	Dependent on final length	0.288 (7.31)	-	-	-	Excellent for custom cutting rectangular pieces. See SJ3766, SJ3768 or SJ3799 for ultrasonic attachment version.	
Rectangular slide-in (2 edges cut down forming a flange) for mounting into a bracket										
 59	Product Number	Product Type ¹	Dimensions ²	Functional Size/Area	Engaged Thickness ³	Counter-bored hole diameter	Flange Width inch (mm)	Flange Thickness inch (mm)	Comments	
	SJ3736	170	1" x 1.22" (25.4 x 30.7)	1.0 (6.45)	0.288 (7.31)	-	0.079 (2.0)	0.049 (1.25)	Allows quick and easy installation or replacement.	
	SJ3717	400				-	0.079 (2.0)	0.049 (1.25)		
	SJ3227	250	5/8" x 1" (16 x 25.4)	0.48 (3.10)		-	0.098 (2.5)	0.079 (2.0)		
	SJ3700	170	25/32" X 25/32" (20 x 20)	0.43 (2.77)		-	0.098 (2.5)	0.079 (2.0)		
	SJ3228	400	25/32" x 25/32" (20 x 20)	0.43 (2.77)		-	0.098 (2.5)	0.079 (2.0)		
	SJ3229	250	1" x 1" (25.4 x 25.4)	0.76 (4.90)		-	0.098 (2.5)	0.079 (2.0)		
	SJ3750	400	32 mm x 50 mm	1.95 (12.58)		0.303 (7.70)	-	0.079 (2.0)		0.049 (1.25)
	SJ3248	250	1" x 1.1" (25.4 x 28)	0.79 (5.10)		0.298 (7.57)	-	0.137 (3.5)		0.52 (1.32)
SJ3249	400	1" x 1.1" (25.4 x 28)	0.79 (2.77)	0.298 (7.57)		-	0.137 (3.5)	0.52 (1.32)		

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



3M™ Dual Lock™ - Piece Parts with Functional Bases

	Product Number	Product Type ¹	Dimensions ² (length x width) or diameter for circular parts	Functional Size/Area square inches (square cm)	Engaged Thickness ³ inches (mm)	Comments
Pine tree shaped push-in stem for insertion into wood and similar substrates over a range of thicknesses.						
 60	SJ3209	250	26 x 26 mm	1.04 (6.7)	0.293 (7.44)	12 mm (0.49") long base stem, designed to fit a 7.9 to 8.4 mm diameter hole.
	SJ3749	400				
	SJ3222	250	26 x 26 mm	1.04 (6.7)	0.293 (7.44)	12 mm long base stem, designed to fit a 7 to 7.5 mm diameter hole.
	SJ3224	400				
	SJ3848	250	26 x 26 mm	1.04 (6.7)	0.293 (7.44)	16.5 mm long base stem, designed to fit a 7.9 to 8.4 mm diameter hole.
	SJ3748	400				
	SJ3266	170	26 x 26 mm	1.04 (6.7)	0.293 (7.44)	12.74 mm long base stem, designed to fit an 8.20 to 8.50 mm diameter hole.
	SJ3267	250				
	SJ3268	400				
	SJ3272	170				
SJ3273	250					
SJ3274	400	White version of SJ3266.				
						White version of SJ3267.
						White version of SJ3268.
Single round cone shaped base for sliding into a key hole slot						
 61	SJ3743	170	20 mm x 20 mm	0.62 (4.0)	0.293 (7.44)	Fits key hole slot 3.1-3.25 mm thick panel that is 18 mm in diameter. The shaft (stem of the cone) is 3.25 mm tall and 4 mm wide.
	SJ3705	250				
	SJ3221	250	20 mm x 20 mm	0.62 (4.0)	0.272 (6.91)	Fits key hole slot in a 2.65 mm thick panel that is 18 mm in diameter. The shaft (stem of the cone) is 2.65 mm tall and 4 mm wide.
	SJ3731	400				
	SJ3277	170	26 mm x 26 mm	1.04 (6.7)	0.293 (7.44)	Fits key hole slot in a 3 mm thick panel that is 14 mm in diameter. The shaft (stem of the cone) is 3 mm tall and 4 mm wide.
	SJ3278	250				
SJ3279	400					
Snap-in base for 6.5 x 10 mm rectangular hole						
 62	SJ3704	250	26 x 26 mm	1.04 (6.7)	0.293 (7.44)	Fits a 1.30 to 1.59 mm thick panel.
	SJ3713	400				
	SJ3825	170	26 x 26 mm	1.04 (6.7)	0.283 (7.19)	Fits a 0.71 to 0.91 mm thick panel.
	SJ3826	250				
	SJ3827	400				
Snap-in base for a slotted hole in a 0.70 to 1.20 mm thick panel						
 63	SJ3804	170	26 x 26 mm	1.04 (6.7)	0.293 (7.44)	 Fits a 0.70 to 1.00 mm thick sheet metal. 5.35 +/- .05 mm x 21.25 + .00/- .15 mm slot. Fits a 1.00 to 1.20 mm thick sheet metal. 6.00 +/- .05 mm x 21.25 + .00/- .15 mm slot.
	SJ3805	250				
	SJ3806	400				

Notes:

- * Suggest 4 square inches of fastener per pound of load as a starting point for evaluation of long term performance. Suggest type 250 engaged to type 250 as a starting point for evaluations. Tensile strength increases approximately in the following order: 170/250 < 250/250 ≤ 170/400 < 250/400.
- * The information provided is considered representative only for use in narrowing the possibilities of 3M™ Dual Lock™ piece parts to be considered for further evaluation, and should not be used for specification purposes.
- * User is responsible for determining whether the 3M product is fit for the desired end use. Refer to specific product technical datasheets for more detailed product performance information.
- * All 3M™ Dual Lock™ Piece parts are comprised completely of black polypropylene

Footnotes:

- 1) Type 400 is not recommended to be engaged to other type 400 fasteners. As well, type 170 should not be engaged with type 170. Engagement strength is dependent upon the area engaged and number of stems engaged. The engagement strength for the same area a
- 2) The actual 3M™ Dual Lock™ area available for (dis)engagement may be less than the part dimension. This should be taken into consideration when designing how much 3M™ Dual Lock™ will be required for a specific application.
- 3) Engaged thickness is for the shown product engaged to 3M™ Dual Lock™ Reclosable Fasteners SJ3781 (a type 250 Dual Lock™ with an acrylic adhesive backcoating). You can mix products with different backcoatings (standard pressure sensitive adhesives or via our 3M™ Dual Lock Mix and Match Program) to obtain a greater variety of engaged thicknesses. Any of these 3M™ Dual Lock™ Reclosable Fasteners can be engaged with 3M™ Scotchmate™ Reclosable Fasteners, providing a quick grab closure with high strength and limited life.

3M Specialty Products



- **3M™ Bumpon™ Protective Products** –
Take the edge off noise, put an end to scratches

These pressure sensitive adhesive-backed pads, feet, buttons, strips, bumper, sheets, and spacers bond fast and permanently to most clean surfaces. Resilient elastomer cushions and damps noise indefinitely. High coefficient of friction resists skidding on most surfaces.

- **3M™ Viscoelastic Damping Polymers** –
Quiet noise and reduce vibration
Optimized polymer converts vibrational energy to negligible heat that readily dissipates.

- **3M™ Safety-Walk™ Slip Resistant Materials**
Protect against slips and falls

3M™ Bumpon™ Protective Products – Resilient Rollstock Products

Product	Color	Tape Construction		Product Hardness ASTM D-2240	Adhesive Type and Thickness mils (mm)	Liner Type and Thickness mils (mm)	Adhesion to Steel oz./0.5 in.	Comments
		Backing Facestock	Caliper mils ⁴ (mm)					
5200 Series³								
SJ5200	Light brown	Polyurethane Foam	125 (3.2)	25 Shore A	Synthetic Rubber (R-25) 2.0 (0.05)	60# Paper ² 3.6 (0.09)	55	UL 94HB recognized.
SJ5216	Light brown	Polyurethane Foam	62 (1.6)	25 Shore A	Synthetic Rubber (R-25) 2.0 (0.05)	60# Paper ² 3.6 (0.09)	55	UL 94HB recognized.
5600 Series³								
SJ5616	Clear	Clear Polyurethane	62 (1.6)	70 Shore A	Acrylic (A-20) 1.0 (0.03)	80# Paper ¹ 4.8 (0.12)	25	Clear rollstock, great where invisible die-cuts are needed.
SJ5632	Clear	Clear Polyurethane	31 (0.8)	70 Shore A	Acrylic (A-20) 1.0 (0.03)	80# Paper ¹ 4.8 (0.12)	25	Clear rollstock, great where invisible die-cuts are needed.
5800 Series³								
SJ5808	Black, Brown	Polyurethane	125 (3.2)	70 Shore A	Natural Rubber (R-30) 3.6 (0.09)	60# Paper ² 2.0 (0.05)	22	UL 94HB recognized.
SJ5816	Black, Brown	Polyurethane	62 (1.6)	70 Shore A	Natural Rubber (R-30) 3.6 (0.09)	60# Paper ² 2.0 (0.05)	22	UL 94HB recognized.
SJ5832	Black, Brown	Polyurethane	31 (0.8)	70 Shore A	Natural Rubber (R-30) 3.6 (0.09)	60# Paper ² 2.0 (0.05)	22	UL 94HB recognized.
5900 Series³								
SJ5904	Black	Polyurethane Foam	250 (6.4)	36 Shore A	Acrylic (A-20) 4.8 (0.12)	80# Paper ¹ 2.0 (0.05)	25	UL 94HB recognized, except for SJ5916.
SJ5908	Black	Polyurethane Foam	125 (3.2)	36 Shore A	Acrylic (A-20) 4.8 (0.12)	80# Paper ¹ 2.0 (0.05)	25	UL 94HB recognized, except for SJ5916.
SJ5916	Black	Polyurethane Foam	62 (1.6)	36 Shore A	Acrylic (A-20) 4.8 (0.12)	80# Paper ¹ 2.0 (0.05)	25	UL 94HB recognized, except for SJ5916.
6000 Series³								
SJ6008	Black, Brown	Polyurethane	125 (3.2)	70 Shore A	Acrylic (A-20) 4.8 (0.12)	80# Paper ¹ 2.0 (0.05)	25	UL 94HB recognized.
SJ6016	Black, Brown	Polyurethane	62 (1.6)	70 Shore A	Acrylic (A-20) 4.8 (0.12)	80# Paper ¹ 2.0 (0.05)	25	UL 94HB recognized.
SJ6032	Black, Brown	Polyurethane	31 (0.8)	70 Shore A	Acrylic (A-20) 4.8 (0.12)	80# Paper ¹ 2.0 (0.05)	25	UL 94HB recognized.
6200 Series³								
SJ6208	Black	Polyurethane	125 (3.2)	70 Shore A	Synthetic Rubber (R-25) 2.0 (0.05)	60# Paper ² 3.6 (0.09)	55	Fast bonding, permanent adhesion. UL 94HB recognized.
SJ6216	Black	Polyurethane	62 (1.6)	70 Shore A	Synthetic Rubber (R-25) 2.0 (0.05)	60# Paper ² 3.6 (0.09)	55	Fast bonding, permanent adhesion. UL 94HB recognized.
SJ6232	Black	Polyurethane	31 (0.8)	70 Shore A	Synthetic Rubber (R-25) 2.0 (0.05)	60# Paper ² 3.6 (0.09)	55	Fast bonding, permanent adhesion. UL 94HB recognized.
TPE (Thermoplastic Elastic Elastomer) Santoprene™ Rollstock								
SJ6808	Black	Extruded TPE	122 (3.1)	64 Shore A	Acrylic 4.0 (0.10)	PET 3 (0.07)	90	Economical, easy to die cut and press, ready for converting.
SJ6816	Black	Extruded TPE	62 (1.5)	64 Shore A	Acrylic 4.0 (0.10)	PET 3 (0.07)	80	Economical, easy to die cut and press, ready for converting.
SJ6832	Black	Extruded TPE	28 (0.7)	64 Shore A	Acrylic 4.0 (0.10)	PET 3 (0.07)	80	Economical, easy to die cut and press, ready for converting.

¹ 80# (lb./ream) white silicone coated paper with printed 3M Bumpon Logo.

² 60# (lb./ream) white silicone coated paper with printed 3M Bumpon Logo.

³ Service Temperature Range: -30°F (-34°C) to 150°F (66°C) and up to 225°F (107°C) intermittent exposure.

⁴ 1 mil = .001 inches

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



3M™ Bumpon™ Protective Products – Resilient Rollstock

Resilient Rollstock Features	5800 series	5600 series 5900 series 6000 series	6200 series
Adhesive	Natural Rubber (R-30)	Acrylic (A-20)	Synthetic Rubber (R-25)
Adhesion (Peel) Low Surface Energy High Surface Energy	Good Good	Poor Good	Excellent Excellent
Static Shear 75°F 120°F 158°F	Excellent Fair Poor	Excellent Excellent Excellent	Excellent Good Fair
Initial Adhesion Low Surface Energy High Surface Energy	Good Good	Poor Fair	Excellent Excellent
Adhesion Buildup	Some	Gradual	Some
Solvent Resistance	Good	Excellent	Good
Age Life	Good	Excellent	Good

Series	Product	Tape Construction		Color	Comments	Adhesive		Liner		Product Hardness oz./0.5 inch ASTM-D 2240	Adhesion to Steel oz./0.5 in.	Master Size	Specs
		Caliper Mils	Backing (Facestock)			Type	Thickness Mils	Type	Thickness Mils				
5600 <i>Acrylic</i>	SJ5632	31	Polyurethane	Clear	“Clear” Rollstock great where “invisible” die cuts are needed.	Acrylic A-20	1.0	80# Paper	4.8	70 Shore A	25	9” x 72 yd 9” x 36 yd	UL
	SJ5616	62											
	SJ5608	125											
5800 <i>Natural Rubber</i>	SJ5832	31	Polyurethane	Black, Brown	UL 94HB recognized.	Natural Rubber R-30	2.0	60# Paper	3.6	70 Shore A	22	13.5” x 72 yd 13.5” x 36 yd	UL
	SJ5816	62											
	SJ5808	125											
5900 <i>Acrylic</i>	SJ5916	62	Polyurethane Foam	Black	UL 94HB recognized, except for SJ5916.	Acrylic A-20	2.0	80# Paper	4.8	36 Shore A	25	13.5” x 36 yd 13.5” x 18 yd	UL
	SJ5908	125											
	SJ5904	250											
6000 <i>Acrylic</i>	SJ6032	31	Polyurethane	Black, Brown	UL 94HB recognized.	Acrylic A-20	2.0	80# Paper	4.8	70 Shore A	25	13.5” x 72 yd 13.5” x 36 yd	UL
	SJ6016	62											
	SJ6008	125											
6200 <i>Synthetic Rubber</i>	SJ6232	31	Polyurethane	Black	Fast bonding, permanent adhesion. UL 94HB recognized.	Synthetic Rubber R-25	2.0	60# Paper	3.6	70 Shore A	55	9” x 72 yd 9” x 36 yd	UL
	SJ6216	62											
	SJ6208	125											
6800 <i>Acrylic</i>	SJ6808	122	Extruded TPE	Black	Economical, easy to die cut and press, ready for converting.	Acrylic	4.0	PET	3.0	64 Shore A	90	18” x 18 yd	
	SJ6816	62									80	18” x 36 yd	
	SJ6832	28									80	18” x 72 yd	

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3M™ Bumpon™ Protective Products – Molded Products

Product	Color	Adhesive ¹	Shape	Width in. (mm)	Height in. (mm)	Hardness (Shore A)	Comments
Quiet Clear							
SJ6506	Clear	R-25	Hemisphere	0.375 (9.5)	0.150 (3.8)	55	Clear, sound damping properties.
SJ6512	Clear	R-25	Cylindrical	0.500 (12.7)	0.140 (3.5)	55	Clear, sound damping properties.
SJ6553	Clear	R-25	Hexagonal Cone	0.433 (11.0)	0.120 (3.1)	55	Clear, sound damping properties.
SJ6561	Clear	R-25	Hexagonal Hemisphere	0.433 (11.0)	0.150 (3.8)	55	Clear, sound damping properties.
Cylindrical							
SJ5001	Black	R-30	Cylindrical	0.500 (12.7)	0.145 (3.6)	70	Concave top. Good load bearing capacity.
SJ5012	White, Gray, Brown, Black	R-30	Cylindrical	0.500 (12.7)	0.140 (3.6)	70	Versatile foot style for use on high-energy surfaces.
SJ5076	Black	R-30	Cylindrical	0.315 (8.0)	0.110 (2.8)	70	Flat top, nonskid for appliances and electronics.
SJ5312	Transparent	A-20	Cylindrical	0.500 (12.7)	0.140 (3.6)	75	Universal color matching. Nonslip. Ideal for picture framing.
SJ5744	Black	R-30	Cylindrical	0.750 (19.1)	0.160 (4.1)	70	Excellent load bearing capacity.
SJ6112	Black	R-25	Cylindrical	0.500 (12.7)	0.140 (3.6)	70	Versatile foot style, best for low-energy materials.
Hemisphere							
SJ5003	White, Gray, Brown, Black	R-30	Hemisphere	0.440 (11.2)	0.200 (5.1)	70	Good energy absorption on impact.
SJ5006	White, Gray, Brown, Black	R-30	Hemisphere	0.375 (9.5)	0.150 (3.8)	70	Works well as cushioning stop.
SJ5009	Black, White, Gray, Brown	R-30	Hemisphere	0.880 (22.4)	0.400 (10.2)	70	Protects wall from door knob.
SJ5017	White, Black, Gray, Brown	R-30	Hemisphere	0.750 (19.1)	0.380 (9.7)	70	Recessed center, like screw-in bumper.
SJ5027	Black, Gray, Brown	R-30	Hemisphere	0.630 (16.0)	0.312 (7.9)	70	Cushions heavier items like glass or liftgate.
SJ5302	Transparent	A-20	Hemisphere	0.312 (7.9)	0.085 (2.2)	75	For feet on small electronics.
SJ5306	Transparent	A-20	Hemisphere	0.375 (9.5)	0.150 (3.8)	75	Smaller, energy absorbing with small contact point.
SJ5382	Transparent	A-20	Hemisphere	0.250 (6.4)	0.075 (1.9)	75	Smaller contact point for energy absorption.
SJ5532	White, Black	R-30	Hemisphere	1.880 (47.8)	0.660 (16.8)	70	Large, ideal for door stops.
Hexagon							
SJ5077	Black	R-30	Hexagonal Width Flat Top	0.750 (19.1)	0.160 (4.1)	70	Smallest hemisphere for appliances and electronics feet use.
SJ5201	Light Brown	R-25	Hexagon Die-cut	0.433 (11.0)	0.125 (3.2)	25	Unique with round flat top.
SJ5202	Light Brown	R-25	Hexagon Die-cut	0.433 (11.0)	0.063 (1.6)	25	Soft foam with quick stick R-25 adhesive for cabinets.
Square							
SJ5007	White, Black	R-30	Tapered Square	0.413 (10.4)	0.098 (2.5)	70	Nested on pad for fast removal.
SJ5008	White, Gray, Brown, Black, Transparent	R-30	Tapered Square	0.500 (12.7)	0.125 (3.1)	70	Popular, thin nonskid for appliances or electronics.
SJ5018	White, Gray, Black, Brown	R-30	Tapered Square	0.500 (12.7)	0.230 (5.8)	70	Larger height, smaller top surface for heat dissipation.
SJ5023	White, Gray, Brown, Black	R-30	Tapered Square	0.812 (20.6)	0.300 (7.6)	70	For larger appliances and electronics.
SJ5514	Black, White, Gray, Brown	R-30	Tapered Square	0.812 (20.6)	0.520 (13.2)	70	Larger, high profile for heat dissipation.
SJ5705	Black	R-30	Tapered Square	1.280 (32.4)	0.250 (6.4)	70	Larger, low profile for heavier appliances.
Printed Circuit Board Spacers							
SJ61A1	Black	R-25	Cylindrical	0.312 (7.9)	0.200 (5.1)	70	Shape for PCB spacer applications.
SJ61A3	Black	R-25	Cylindrical	0.375 (9.5)	0.250 (6.35)	70	Shape for PCB spacer applications.
SJ61A4	Black	R-25	Cylindrical	0.375 (9.5)	0.311 (7.9)	70	Shape for PCB spacer applications.
SJ61A8	Black	R-25	Cylindrical	0.375 (9.5)	0.135 (3.4)	70	Shape for PCB spacer applications.
Top-Hat							
SJ6115	Black	R-25	Cylindrical	0.625 (15.9)	0.187 (4.75)	70	Flat top use for recesses.
SJ6125	Black	R-25	Hemisphere	0.625 (15.9)	0.250 (6.35)	70	Resists shear and removal.
Easy Slide							
SJ6344	Black	R-25	Cylindrical	0.750 (19.0)	0.160 (4.0)	80	Use for low friction.

¹A-20: *Acrylic* - high strength adhesion to high energy surface. R-25: *Synthetic Rubber* - ideal for low surface energy substrates. R-30: *Natural Rubber* - excellent adhesion to a wide variety of surfaces.

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3M™ Viscoelastic Damping Polymers

Vibration and Shock Solutions

3M™ Viscoelastic Damping Polymers have been proven to reduce vibration in automobiles, disk drives, and aircraft. Through continuous improvement, 3M can now offer you a choice of standard damping polymers or ultra-pure damping polymers to expand application possibilities to include the following:

Cover constrained layer dampers; multi-layer laminates using metal or polymeric films; free layer dampers; suspension dampers; isolators; panel, pipe, and wing dampers; and more.

Market Application Ideas

- Automotive including body panels and under the hood.
- Aerospace including space craft and commercial aircraft.
- Electronics including disk drives.
- Sporting goods including golf clubs and tennis racquets.
- Appliances including washing machines.

Performance Versatility

- Choice of enhanced acrylic polymer for improved vibration damping or ultra-pure polymer for improved vibration damping, plus low out gassing and ionics.
- Choice of good to excellent thermal stability for long term applications at moderate temperatures, or short term high temperature exposure.
- Damping in temperatures ranging from as low as 0°C (32°F) to as high as 105°C (221°F).
- Select Loss Factor and Storage Modulus values to meet requirements.

Construction Availability

Polymer	Thickness	Liner	Typical Performance Characteristics
Standard Viscoelastic Damping Polymer			
110	2 and 5 mil	Paper	- Good damping performance at higher temperature: 40-105°C (104-221°F). - Heat and pressure needed for bonding.
112	1, 2 and 5 mil	Paper	- Good damping performance at 0-65°C (32-142°F). - Pressure only for adequate bonding at room temperature (21°C/70°F) for many applications.
130	2 and 5 mil	Polyester	- Good damping performance at moderate temperature range of 20-90°C (68-194°F) - Pressure only for adequate bonding at room temperature (21°C/70°F) for some applications.
Ultra-pure Viscoelastic Damping Polymer			
242	1 and 2 mil	Polyester	- Good damping performance at 0-65°C (32-142°F). - Low outgassing by GC/MS (Modified ASTM 4526). Low ionics.

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3M™ Safety Walk

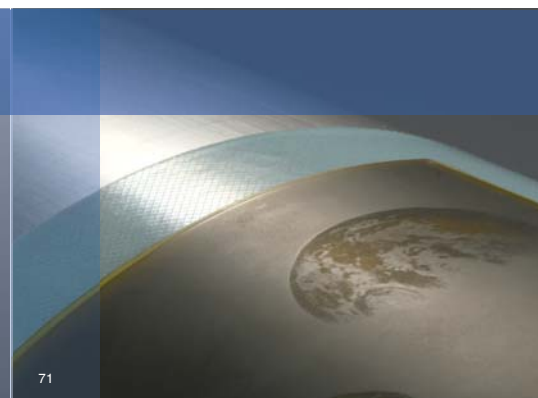
Product	Product Characteristics	Color	Master Roll Size
220	Non-mineral fine texture, for barefoot traffic	Clear	48 x 120 ft
280	Non-mineral fine texture, for barefoot traffic	White	48 x 120 ft
310	Non-mineral, medium texture, for barefoot or light traffic	Black	48 x 120 ft
370	Non-mineral, medium texture, for barefoot or light traffic	Grey	48 x 120 ft
510	Mineral coated, foil backing for conformability	Black	48 x 120 ft
530	Mineral coated, foil backing for conformability	Yellow	48 x 120 ft
610	Mineral coated, heavy texture for light to heavy traffic	Black	48 x 120 ft
620	Mineral coated, heavy texture for light to heavy traffic	Clear	48 x 120 ft
660	Mineral coated, heavy texture for light to heavy traffic	Brown	48 x 120 ft
710	Mineral coated, coarse texture for extreme traffic	Black	48 x 120 ft
901	Primer for hard to stick to surfaces	N/A	N/A
902	Edge sealing compound to provide extra protection from liquids	N/A	N/A
903	Rubber hand roller to help provide a firm bond	N/A	N/A

Custom adhesives available on 300, 500, 600 series products.

Custom colors available on 300 series products.

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Flexographic Mounting Systems



For halftone work where dot gain is a concern, a softer tape optimizes reproduction. When solids and dots share the plate, a combination tape can properly balance the result. When your customer wants solid ink and crisp lines, you'll want firm, high density mounting tape.

From the wide 3M selection, you can find the adhesives, foams, and thicknesses for the print quality that customers demand and expect. You'll also find choices to meet your handling requirements for:

- Mounting ease and positioning accuracy
- Easy, clean removal from plate and cylinder

For example, tapes designated with an "E" are Easy Mount products that virtually eliminate air bubbles and edge lifting, yet remove easily without plate damage.

EH Series tapes are designed for:

- Higher plate slide adhesion
- Small diameter print cylinder
- 0.107" thick plate or greater

Products include the following:

- 3M™ Flexomount™ Solid Printing Tapes
- 3M™ Cushion-mount™ Plus Combination Printing Tapes
- 3M™ Cushion-mount™ Plus Process Printing Tapes

3M™ Combination Printing Tapes

3M™ Process Printing Tapes

18 Series:
Firm

17 Series:
Medium Firm

15 Series:
Medium

10 Series:
Standard

13 Series:
Medium Soft

19 Series:
Light Medium

12 Series:
Light

11 Series:
Process

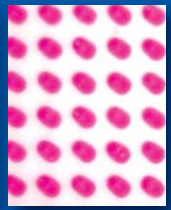
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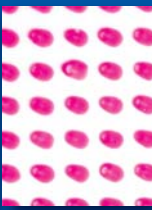
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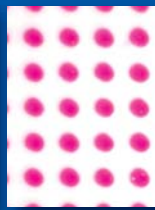
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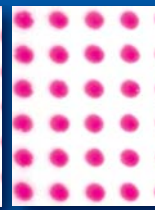
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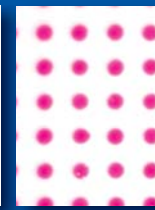
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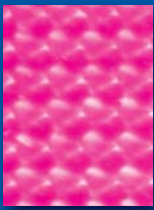


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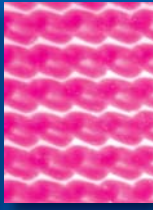


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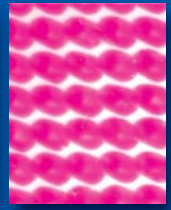
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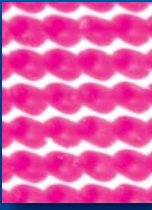
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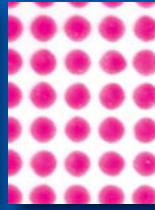
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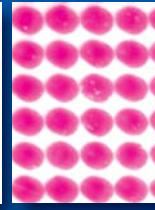
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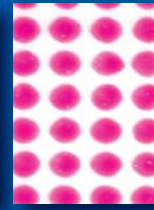
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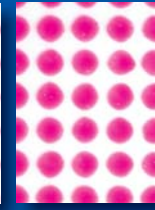
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REVERSE



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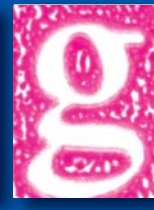
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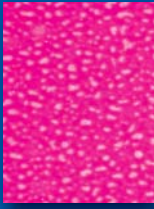


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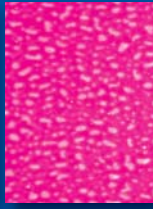


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100% SOLID



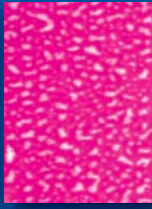
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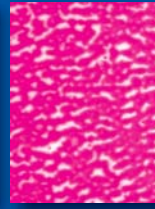
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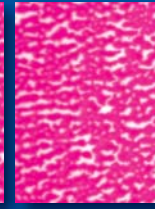
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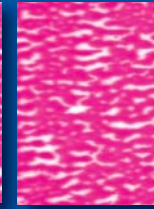
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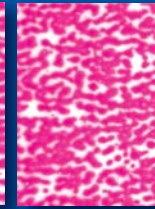
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103



104



105

- Quality results when plate contains mostly solids in a combination of solid and halftone images
E1815, E1815H, 1815M
- Quality results when plate contains slightly more solids in a combination of solid and halftone images
E1715, E1715H
- Quality results for high speed printing with fine type reverses and expanded color gamut
E1515, E1515H
E1520, E1520H
- Quality results when solid and halftone areas are equally important
E1015, E1015H, 1015, 1015M
E1020, E1020H, 1020, 1020M, 1020R
E1040, E1040H, 1040
E1060, E1060H, 1060
- Quality results for high speed printing of combination work when halftone areas exceed solid
E1315, E1315H
E1320, E1320H
- Soft support improves tone reproduction when process and halftone images predominate
E1915, E1915H, 1915M, E1915S, E1915HS
E1920, E1920H, 1920M, E1920S, E1920HS, 1920S,
- Low density maximizes dot reproduction for high quality process work and screen printing
E1215, E1215H
E1220, E1220H
- Low density maximizes dot reproduction for high quality process work and screen printing
E1115, E1115H, 1115
E1120, E1120H, 1120, 1120K

E - Air Release Medium Plate Side Adhesion EH - Air Release High Plate Side Adhesion S - High Sleeve Side Adhesion for Urethane Sleeves M - Modified Plate Side Adhesion
DL - Double Liner R - For Rubber Plates K - High sleeve side adhesion for composite sleeves.
Additional calipers available for specialized applications.

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



	Product Number	Application Thickness		Manufactured Target Thickness		Description	Plates	Cylinders	Color	Features	
		Inches	mm	Inches	mm						
3M™ Solid Printing Tapes	3M™ Flexomount™ Solid Printing Tapes										
	411DL	0.015	0.38	0.015	0.38	Gray double coated tape with a soft rubber adhesive on each side of a vinyl carrier. Available in single and double liner.	P/R	SS/S/K SS/S/K SS/S/K	Gray Gray Gray	Gray vinyl tapes with high adhesion. Helps reduce edge lifting. Helps minimize pin holing on solid work.	
	412DL	0.020	0.51	0.020	0.51		P/R				
	447DL	0.010	0.25	0.010	0.25		P/R				
	413DL	0.015	0.38	0.015	0.38	Black double coated tape with a firm rubber adhesive on each side of a vinyl carrier. Available only in double liner.	P/R	SS/S/K SS/S/K	Black Black	Black vinyl - lower adhesion. Higher temperature and solvent resistance. Helps minimize pin holing on solids.	
	414DL	0.020	0.51	0.020	0.51		P/R				
3M™ Combination Printing Tapes	18 Series 3M™ Cushion-Mount™ Plus Firm Combination Printing Tapes										
	E1815H, E1815, 1815M	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S/K	Blue	Better solid ink density than the standard combination printing tapes. Clean removal from plate and print cylinder.	
	E1820H, E1820, 1820M	0.020	0.51	0.022	0.56		P				
	17 Series 3M™ Cushion-Mount™ Plus Medium Firm Combination Printing Tapes										
	E1715H, E1715, E1720H, E1720, 1720M	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S/K	Teal	Quality results when plate contains slightly more solids in a combination of solid and halftone images.	
		0.020	0.51	0.022	0.56						
	15 Series 3M™ Cushion-Mount™ Plus Medium Firm Combination Printing Tapes										
	E1515H, E1515, E1520H, E1520	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S/K SS/S/K	Purple Purple	High quality, medium combination print.	
		0.020	0.51	0.022	0.56		P				
	10 Series 3M™ Cushion-Mount™ Plus Standard Combination Printing Tapes										
	E1015H, E1015, 1015, 1015M	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S/K SS/S/K SS/S/K SS/S/K SS/S/K SS/S/K	White White White White White White	Most versatile 3M™ Cushion-Mount™ Plus Tapes. Effectively prints most types of flexographic printing.	
	E1015-15H, E1015-15, 1015-15	0.015	0.38	0.015	0.38		P				
	E1020H, E1020, 1020, 1020M, 1020R	0.020	0.51	0.022	0.56		P P/R				
	E1020-20H, E1020-20, 1020-20	0.020	0.51	0.020	0.51		P				
	E1040, 1040, E104H	0.040	1.02	0.042	1.07		P				
E1060, 1060, E1060H	0.060	1.52	0.062	1.57	P						
13 Series 3M™ Cushion-Mount™ Plus Medium Soft Combination Printing Tapes											
E1315H, E1315, E1320H, E1320	0.015	0.38	0.017	0.43	Differential acrylate adhesive system.	P	SS/S/K SS/S/K	Yellow Yellow	High quality, medium-soft combination print.		
	0.020	0.51	0.020	0.51		P					
19 Series 3M™ Cushion-Mount™ Plus Soft Combination Printing Tapes											
E1915H, E1915, E1915HS, 1915M, E1915S	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S SS/S S/K	Pink Pink Pink	Soft support improves tone reduction when process and halftone images predominate.		
E1920H, E1920, 1920M	0.020	0.51	0.022	0.56		P					
E1920S, 1920S, E1920HS	0.020	0.51	0.022	0.56		P					
12 Series 3M™ Cushion-Mount™ Plus Light Combination Printing Tapes											
E1215H, E1215, E1220H, E1220	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S SS/S	Orange Orange			
	0.020	0.51	0.022	0.56		P					
3M™ Process Printing	11 Series 3M™ Cushion-Mount™ Plus Process Printing Tapes										
	E1115H, E1115, 1115	0.015	0.38	0.017	0.43	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/S SS/S SS/S SS/S S/K	Tan Tan Tan Tan Tan	Better tone reproduction than the standard combination printing tapes. Clean removal from plate and print cylinder.	
	E1115-15H, E1115-15, 1115-15	0.015	0.38	0.015	0.38		P				
	E1120H, E1120, 1120	0.020	0.51	0.022	0.56		P				
	E1120-20, 1120-20	0.020	0.51	0.020	0.51		P				
	1120K	0.020	0.51				P				

E - Air Release Liner M - Modified Plate Side Adhesion DL - Double Liner S - Urethane Sleeve K - High sleeve side adhesion for composite sleeves.
 SS - Stainless Steel Cylinder R - Rubber Plates P - Photopolymeric Plates EH - High Plate Side Adhesion

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E-Series Tapes with Easy Mount Adhesive

On easy with reduced air entrapment

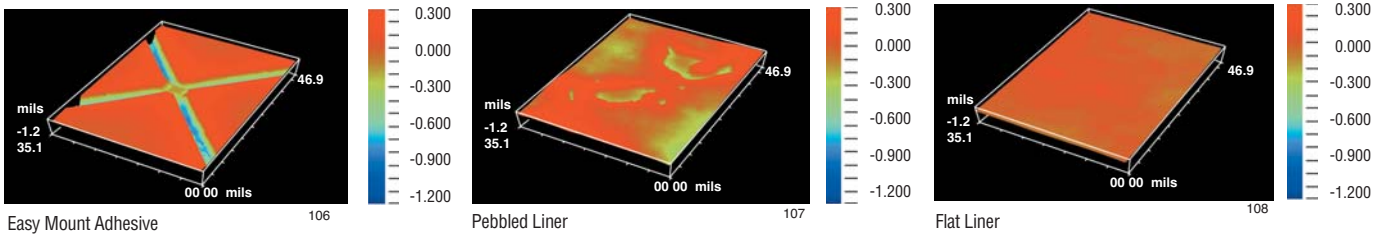
Unlike flat or pebbled liners, E-Series liners are crosshatched on both sides with unique microchannels that allow air to flow throughout the adhesive. Improved airflow virtually eliminates air bubble problems

for easier application. Air releases from between the tape and plate, and between the tape and cylinder or sleeve for virtually bubble-free mounting. Setup is faster with smoother surfaces for cleaner print quality and higher productivity.

EH-Series Adhesive to hold the edge on small diameter cylinders

3M EH-Series Tapes combine the air-release of 3M E-Series Tapes with higher plate side adhesion to resist edge lifting on cylinder diameters as small as 2".

Microscopic view of adhesive surface measured with interferometer



Stays on with reduced edge-lifting

Exclusive 3M plate-side adhesive maintains tight contact between tape and plate to dramatically reduce edge lifting. Saves the prep time, downtime, and labor of sealing plate edges.

Peels off easily to reduce plate damage

E-series tapes grip tightly but peel off so easily you can virtually eliminate plate back treatment. You're less likely to damage plates, so you can save time, labor, and money.

Bubble-free print quality

- Prevent blemishes in screen and process printing
- Help assure proper registration

3M™ Thin Tapes

When cushioning is unnecessary, these tapes can mount both rubber and photopolymer plates. Some are also repositionable.

Product Number	Tape Thickness Inch (mm)	Description	Compressible Sleeves	Corrugated	Rotary Letterpress	Make Ready	Features
415	0.004" (0.10)	Double coated tape with a medium-firm acrylic adhesive on each side of a polyester carrier.		X	X		Good adhesion to a wide range of surfaces; can be used for Cameron Press applications.
442KW	0.004" (0.10)	Double coated tape with a firm rubber adhesive on each side of a polyester carrier.		X	X		Plate mounting applications requiring a thin tape to bond rubber or photopolymer plates to metal cylinders.
443	0.005" (0.13)	Double coated tape with a soft rubber adhesive on each side of a polyester carrier.		X	X		Mounting applications requiring a thin tape to bond polyester, fiberglass, and other surfaces.
465	0.002" (0.05)	Acrylic adhesive transfer tape.		X		X	Small area plate build-up or make-ready. Also used to mount primed rubber plates.
927	0.002" (0.05)	Acrylic adhesive transfer tape.		X		X	Corrugated plate mounting applications where repositionability and removability are not required.
950	0.005" (0.13)	Acrylic adhesive transfer tape.		X			Corrugated plate mounting applications where repositionability and removability are not required.
2205	0.005" (0.13)	Double coated film tape with differential acrylic adhesive on a polyester film carrier.	X	X			Adhesives designed specifically for corrugated flexo mounting. Removes cleanly and easy to reposition
9500PC	0.005" (0.13)	High performance acrylic adhesive on each side of a polyester carrier.	X		X		Thin tape plate mounting applications requiring higher performance than 442KW Tape.

All tapes listed on this chart have been used successfully on non-compressible sleeves.

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3M™ Flexographic Mounting Aids

3M™ Cylinder Mount Build-Up Tape 1640

For use with any 3M flexographic tape to add 0.040" thickness.

3M™ Primer 94

Helps hold the leading and trailing edges of the plate to prevent edge lifting.

3M™ Scotch-Weld™ Adhesives 3762LM, 3776LM, or 3792LM

Used with 3M™ Polygun™ LT Applicator to seal plate edges against ink and solvent penetration that causes edge lifting.

3M™ Aluminum Foil Tape 425, 3M™ Vinyl Tape 471, or 3M™ Polyester Film Tape 850

Seals plate edges against ink and solvent penetration that can cause edge lifting.

Scotch® Magic Tape 810

Secures proofing paper to a proofer/mounter with good adhesion but simple removal from the proofing cylinder.

3M™ Splicing Tapes

Go To Products	Product Description	Tape Thickness (mil)	Carrier Thickness (mil)	Carrier Type	Color	Adhesion (Oz/in)	High Temp (Short term) °F (°C)	Go-To Application*	
								Zero Speed	Flying Speed
ASTM Test Method		D-3652	D-3652			D-3330			
Adhesive Transfer Tapes									
465	<ul style="list-style-type: none"> • High tack • Excellent adhesion to most paper stocks • Flexible to -60°F 	2.0	N/A	No Carrier	Clear	25	250 (121)		
9498/9464	<ul style="list-style-type: none"> • Low temp splicing 	2.0	N/A	No Carrier	Clear/Red	20	250 (121)	X	
9499/9497	<ul style="list-style-type: none"> • High temperature splicing 	2.0	N/A	No Carrier	Clear/Red	45	350 (177)	X	
Double Coated Tapes									
415/9420	<ul style="list-style-type: none"> • High tack adhesion to paper and many other surfaces 	4.0	0.5	Polyester	Clear/Red	25	180 (82)		
469	<ul style="list-style-type: none"> • High temp, high tack 	5.5	1.0	Tissue	Red	60	350 (177)		X
9086	<ul style="list-style-type: none"> • Easy tearing, easy handling • Thick high tack adhesive, very conformable 	7.5	1.5	Non woven tissue	Clear	146	250 (121)		
9088	<ul style="list-style-type: none"> • High temperature resistance • High tack and shear strength 	8.3	0.5	Polyester	Clear	137	300 (150)		
9576	<ul style="list-style-type: none"> • Medium tack for general splicing and roll closing 	4.0	1.0	Polypropylene	Clear/Red/Black/Yellow	30	165 (75)		
9737/9737R	<ul style="list-style-type: none"> • Thin PET carrier • Aggressive and versatile tape for many surfaces 	3.5	0.5	Polyester	Clear/Red	60	300 (150)	X	X
9738/9738R	<ul style="list-style-type: none"> • Non-woven tissue carrier • Aggressive and versatile tape for many surfaces 	4.3	1.3	Non woven tissue	Clear/Red	60	300 (150)	X	X
9740	<ul style="list-style-type: none"> • High temperature with extremely wide range • High peel, tack, and shear properties • Performance grade splicing for corrugators 	3.5	0.5	Polyester	Clear	70	425 (218)		X
9741	<ul style="list-style-type: none"> • Thick clear tape • Adheres to a wide variety of substrates • Super aggressive for low surface energy substrates 	6.5	0.5	Polyester	Clear	120	200 (93)		

All tapes in this chart can be considered for zero speed or flying speed splices.

NOTE: This technical information and data should be considered representative or typical only and should not be used for specification purposes.



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