3M™ Package Attachment and Label Protection Products

Keep shipping labels legible, clean, and attractive

3M™ Pouch Tapes feature a perimeter of pressure sensitive adhesive around the edge of non-tacky film. The adhesive sticks to packages creating a film pouch to contain and protect shipping documents as well as small parts and promotional items.

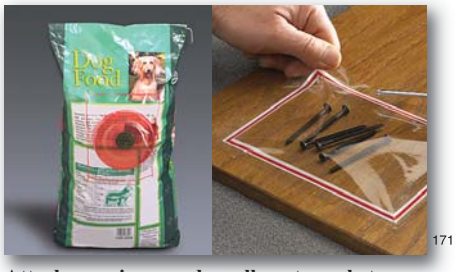
Read-through 3M™ Label Protection Tapes hold labels in place, keeping them legible, clean, and intact.

Application areas for both product lines:

- Food and beverage
- General manufacturing
- Mailrooms
- Merchandising and promotions
- Produce
- Retail


170

Document Control – Rugged Scotch® Polyester Film tape 356 with long-aging adhesive protects labels in harsh or outdoor environments against water, UV, chemicals, and abrasion.



171

Attach premiums and small parts packets – Scotch® Custom Printed Pouch Tape 828CP securely attaches and seals product samples, small parts packets, merchandise, premiums, literature, catalogs, or brochures.


172

Label Attachment and Protection – Scotch® Britegard™ Film Tape 823. Bright yellow directs the eye to the label. Best choice for protection of print on carbonless labels.


173

Versatile and portable tape pads – 3M™ Scotchpad™ Pouch Tape Pad 830 is the same as Scotch® Pouch Tape 824 but in a compact, easy and ready-to-use pad. No dispenser needed.

Product Information:

Product	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Comments
ASTM Test Method:		**D-3652**	**D-3652**	**D-3330**	**D-3759**	**D-3759**	
POUCH TAPE ROLLS							
824	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Standard message "Document Enclosed" — 5" x 6" 333/roll
825	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Same as 824 except on 1" core
827	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Standard message "Document Enclosed" — multiple sizes
828CP	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Custom printing in multiple sizes/colors
829	Polypropylene/Synthetic Rubber	1.2 (.030)	1.9 (.048)	40 (44)	22 (385)	160	Standard message "Packing List Enclosed" — 5" x 6"
8240	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Same as 824 except 500/roll
POUCH TAPE PADS							
830	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Standard message pad "Document Enclosed" — 5" x 6"
830CP	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Custom printed 830 pouch tape pad
832	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Standard message pad "Document Enclosed" — 6" x 10"
832CP	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Custom printed 832
LABEL PROTECTION TAPE ROLLS							
356	Polyester/Acrylate	1.0 (.025)	2.0 (.051)	20 (22)	25 (438)	90	Abrasion and temperature resistant
821	Acetate/Acrylate	1.6 (.041)	2.5 (.064)	25 (28)	12 (210)	15	Pink matte finish, write-on, low glare surface
823	Polypropylene/Synthetic Rubber	1.6 (.041)	2.4 (.061)	60 (66)	30 (525)	160	Yellow color highlights/protects carbonless labels
3565	Polypropylene/Synthetic Rubber	1.4 (.036)	1.9 (.048)	40 (44)	22 (385)	160	General purpose label protection tape
3765	Polypropylene/Acrylate	0.9 (.023)	1.5 (.038)	22 (22)	20 (350)	119	Utility grade label protection tape
LABEL PROTECTION TAPE PADS							
822	Polypropylene/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	4" x 6" transparent tape pads
3750P	Polypropylene/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	2" x 6" transparent tape pad; sealing and recouperage applications

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

3M™ ScotchPad™ Carry Handles

Easy to apply and use handles with custom branding and promotional messages

Pressure sensitive adhesive at each end of a film strip bonds securely on contact to the sides of a product or package, creating an adhesive-free loop between for carrying. Non-sticky paper loop can be custom printed with product information such as bar codes, logos, or promotional messages.

Loop area is available in colors or with custom printing using up to 4 colors

Applications include bundling multi-packs of lightweight goods, carrying products such as small appliances, toys, and hardware items, combining and providing a handle for awkward-to-carry items such as pillows, secure closure of "tuck-in" boxes (eg. bakery goods) – all while providing a handle.

174

Handles on a pad for peel and apply convenience.

175

Synthetic rubber adhesive on each end of a 3M™ Carry Handle grips securely to plastic and many other product and package surfaces. Rugged polypropylene/paper handle conforms to contours for full strength bonding over the contact area.

176

For multi-packs and awkward to hold packages and products. 3M™ ScotchPad™ Carry Handles add comfortable grab-and-go convenience as an added incentive for customers to buy.

177

Weight capacity of 3M™ ScotchPad™ Carry Handles range from 10-35 pounds depending on the handle size and the length of the adhesive contacting the product or package.

178

With custom printing 3M™ ScotchPad™ Carry Handles build brand recognition and display UPCs, coupons, and special offers.

Product Information:

Product	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Comments
ASTM Test Method:		**D-3652**	**D-3652**	**D-3330**	**D-3759**	**D-3759**	
8325	Polypropylene/Paper/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	Custom printed carry handle
8326	Polypropylene/Paper/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	White, unprinted carry handle
8327	Polyester/Paper/Synthetic Rubber	2.0 (.051)	3.5 (.089)	78 (85)	67 (174)	130	Custom printed heavy duty carry handle
8328	Polyester/Paper/Synthetic Rubber	2.0 (.051)	3.5 (.089)	78 (85)	67 (174)	130	White, unprinted heavy duty carry handle

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

3M™ Padded Tape Products

Variety of tape products in pre-cut, easy-to-use strips on a pad

For application convenience, the quick tack benefits of 3M pressure sensitive adhesive tape technology are available in several padded products.

Tape strips

- Recouperage or bundling
- Identification and marking tags

Carry handles

- Multi-packs
- Small, awkward to carry packages

Hang tabs

- Stick to products or packages for hanging on display pegs

Application areas include in-store retail, merchandising promotions, beverages, luggage tags, consumer packaging, and general manufacturing.

179

3M™ ScotchPad™ Packaging Tape Pad 3750P – For recouperage, route delivery people can make in-field repairs of damaged or popped canned beverage carrier packs. Simple repair with a pre-cut tape strip saves the time and cost of returning damaged goods.


180

3M™ ScotchPad™ Custom Tape Pads 809G are available in a wide variety of sizes and colors. They can be used in many applications including repairing of paper or poly bags.


181

3M™ ScotchPad™Hang Tabs are clear, sturdy plastic with pressure sensitive adhesive that sticks to most surfaces. Handy for shrinkwrap packages as well as in-store repair of damaged packaging such as torn punches in chipboard header cards.

182

3M™ ScotchPad™ Custom Printed Tape Pads 809GP can be printed with a custom message in a wide variety of sizes.

183

3M™ ScotchPad™ Custom Printed Marking and Identification Tags 818CP hold up under rough handling for labeling, banding, pricing, or UPC applications.

184

3M™ ScotchPad™ Custom Printed Marking and Identification Tags 818CP can be custom printed for identification.


185

3M™ ScotchPad™ Marking and Identification Tags 818 are available in red, white, yellow and blue for flagging defects in quality control, indicating special handling or identifying parts.

Product Information:

Product	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Comments
ASTM Test Method:		**D-3652**	**D-3652**	**D-3330**	**D-3759**	**D-3759**	
PADDED TAPE PRODUCTS							
802	Acetate/Acrylate	1.6 (.041)	2.0 (.051)	1.5 (1.6)	15 (263)	15	Repositionable matte finish, write-on surface
808	Polypropylene/Synthetic Rubber	1.6 (.041)	2.6 (.066)	50 (55)	30 (525)	160	Standard printed message pads
809G	Polypropylene/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	Custom size pads – available in transparent, red, and yellow
809GP	Polypropylene/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	Custom printed 809G tape pads
818	Polypropylene/Paper/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	Identification and marking tags with adhesive tab; inventory and product defect marking, banding. Available in red, white, blue, and yellow
818CP	Polypropylene/Paper/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	Custom printed 818 marking tags
819	Polypropylene/Synthetic Rubber	1.5 (.038)	5.7 (.145)	100 (110)	150 (2600)	6	Bi-directional filament tape pads
822	Polypropylene/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	4" x 6" transparent tape pads; sealing, repair, recouperage
830	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Standard message DOCUMENTS ENCLOSED pouch tape pads (4" x 6"); attaching documents to shipping containers
830CP	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Custom printed 830 pouch tape pads
832	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Standard message DOCUMENTS ENCLOSED pouch tape pads (6" x 10")
832CP	Polypropylene/Synthetic Rubber	1.6 (.041)	2.5 (.064)	50 (55)	30 (525)	160	Custom printed 832 pouch tape pads
1072	Co-Polyester Laminate/Hot Melt Rubber	20.0 (.510)	25.8 (.655)	55 (61)	45 (788)	N/A	Individual J-hook hang tag; not padded
3750P	Polypropylene/Synthetic Rubber	2.0 (.051)	3.2 (.081)	55 (61)	35 (613)	160	2" x 6" transparent tape pad; sealing and recouperage applications
HANG TABS							
1074	Polyester/Co-Polyester Laminate/ Hot Melt Rubber	10.0 (.255)	13.5 (.343)	55 (61)	45 (788)	130	1" x 2" round hole hang tab
1075	Polyester/Co-Polyester Laminate/ Hot Melt Rubber	10.0 (.255)	13.5 (.343)	55 (61)	45 (788)	130	2" x 2" hole hang tab
1076	Polyester/Co-Polyester Laminate/ Hot Melt Rubber	10.0 (.255)	13.5 (.343)	55 (61)	45 (788)	130	2" x 2" hole hang tab

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

3M™ Narrow Width Film Tapes

A variety of characteristics for specialized applications

Whether you want to close a bag, secure an innerpack box or provide a tamper-indicating secondary closure on containers, these multi-purpose narrow width film tapes perform in all markets including:

- General industrial
- Food and beverage
- Clothing and textiles

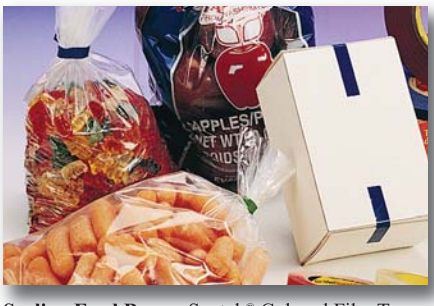
Remote sensing tapes are used for warehouse sortation, automatic sensing and guiding, and security sensing.

186

Scotch® Transparent Film Tape 600 with excellent holding power adheres to a variety of fabrics without staining or discoloration.

187

Sealing Inner Chipboard Boxes – Scotch® Transparent Film Tape 600 is an excellent choice for various packaging applications including combining, attaching and lightduty carton sealing.



188

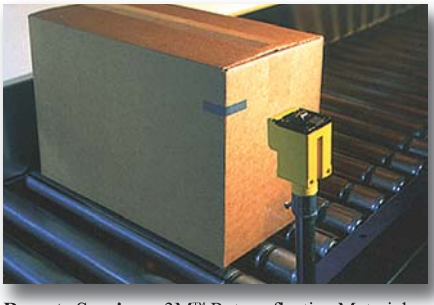
Sealing Food Bags – Scotch® Colored Film Tape 690 features a durable moisture and chemical resistant backing in six different colors. For various color coding, combining and attaching applications.

189

Heat Shrink Applications – Scotch® Heat Shrinkable Film Tape 6887 provides a tamper-indicating secondary closure on a variety of containers.

190

Sealing of Treated Paper and Rough Surfaces – Scotch® Film Fiber Tape 720 is a unique tear-by-hand product with an aggressive high tack adhesive system used for difficult specialty taping applications.



191

Remote Sensing – 3M™ Retroreflective Materials make it easy to design sensing systems based on simple, inexpensive photoelectric sensors. 3M™ Retroreflective Materials increase readability, range, and accuracy with greater control.

192

Hard-to-Stick-to Surfaces – Scotch® High Tack Film Tape 622 with a specially-formulated high tack adhesive system adheres to many hard-to-stick-to surfaces.

Product Information:

Product	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Comments
ASTM Test Method:		**D-3652**	**D-3652**	**D-3330**	**D-3759**	**D-3759**	
NARROW WIDTH FILM TAPES							
600	Paklon™ UPVC/Acrylic	1.5 (.038)	2.3 (.058)	40 (44)	28 (490)	45	Long aging, premium performance
605	Polypropylene/Acrylic	1.6 (.041)	2.5 (.064)	27 (30)	22 (385)	15	Cold temperature stability
610	Cellophane/Natural Rubber	1.4 (.036)	2.3 (.058)	43 (47)	23 (403)	15	Heat resistant up to 300˚ F
622	Polyester/Synthetic Rubber	1.4 (.036)	4.0 (.102)	150 (165)	35 (613)	80	High tack adheres to difficult surfaces
650	Cellophane/High Temperature Rubber	1.4 (.036)	2.5 (.064)	30 (33)	20 (350)	60	High temperature application up to 350˚ F
681	Paklon™ UPVC/Natural Rubber	1.5 (.038)	2.4 (.061)	30 (33)	25 (438)	60	Good moisture, solvent resistance
690	Paklon™/Natural Rubber	1.5 (.038)	2.3 (.058)	30 (33)	35 (613)	45	Colored film tapes for sealing; color coding in red, white, blue, black, and green
720	Film/Fiber/Synthetic Rubber Resin	4.5 (.114)	6.0 (.153)	90 (99)	20 (350)	7	High tack, hand tearable tape; sealing to treated papers
5910	Polypropylene/Acrylic	1.2 (.030)	1.8 (.046)	20 (22)	10 (175)	15	Utility grade for lightduty packaging applications
5912	Cellophane/Synthetic Rubber Resin	1.4 (.036)	2.4 (.061)	54 (59)	28 (490)	15	Utility grade for lightduty packaging applications
6887	Paklon™ UPVC/Synthetic Rubber Resin	1.5 (.038)	2.5 (.064)	50 (55)	30 (525)	55	Heat shrinkable, tamper indication
8004	Polypropylene/Acrylic	1.4 (.036)	2.2 (.056)	20 (22)	NA	NA	Excellent transparency. Suitable for fingerprint lifting applications
Product/ Color	**Tape Structure** (Backing/Adhesive)	**Typical Luminance Factor** (-4 deg.)	**Typical Luminance Factor** (45 deg.)	**Thickness – Applied** (in.)	**Temperature Resistance – Intermittent** (˚F/˚C)	**Lens**	**Comments**
REMOTE SENSING PRODUCTS							
3000X	Micro-cube corner sheeting/ acrylic adhesive/paper liner	3000x	1500x	0.020	150 (65.5)	Protected	Very high gain sheeting
7590	Sealed reflective tape/ low temperature synthetic resin/liner	200x	80x	0.007	400 (204)	Protected	Photoelectric grade sheeting
7610	Exposed reflective tape/ synthetic resin/liner	900x	700x	0.004	250 (121)	Exposed	High gain sheeting
7800	Exposed-lens reflective tape/ synthetic resin/linerless	200x	100x	0.007	500 (260)	Exposed	Photoelectric scanning tape

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

Backing and Adhesive Application Guide

ADHESIVES	BACKINGS						
		Acetate • UV Resistant • Easy to Dispense	**Cellophane** • Heat Resistant	**UPVC** • Moisture Resistant • Chemical Resistant • Heat Shrinkable	**Polyester** • Abrasion Resistant • Strong	**Polypropylene** • Clear • Conformable	**Film/Fiber** • Hand Tearable
	Natural Rubber • Wet Grab • High Adhesion • Yellow Color		• High temperature splicing	• Sealing • Holding • Tabbing			
	Suggested Products		**610, 650**	**681, 690**			
	Synthetic Rubber • Clear • Superior Adhesion • Clean Removal		• Tabbing • Bag closing • Light packaging • Hand application	• Small L-clips • Attaching • Tamper evident seal • Heat shrink	• Heavy duty • Difficult to adhere to surfaces • Minimal stretch • High tack	• Conformability • General use packaging	• Sealing to treated paper and rough surfaces
	Suggested Products		**5912**	**6887**	**622**	**823, 3565**	**720**
	Acrylic • Clear • Long Aging • Non-Yellowing • Cold Temperature Stability	• Light packaging • Hand application • Easy dispensing		• Holding • Attaching • Small carton L-clips • Tabbing • Light packaging where clarity and aging are important	• Label protection in harsh environments	• Cold package packaging • Economics	
	Suggested Products	**800, 821**		**600**	**356**	**605, 5910, 3765**	

3M™ Bumpon™ Protective Products – Molded Shapes

Take the edge off noise, put an end to scratches

Wherever slamming, scratching, nicking, scuffing, sliding, vibration, or noise could be a problem for your product – or make your product a problem – 3M™ Bumpon™ Protective Products provide a margin of safety. You have a choice of permanently resilient pads, feet, buttons, strips, bumpers, or spacers.

- Pressure sensitive adhesives bond fast and permanently when pressed to most clean, dry, and smooth surfaces
- Resilient elastomer will not dry out, rot, or embrittle; cushions and damps noise indefinitely
- High coefficient of friction resists skidding on most surfaces
- Contains no corrosive plasticizer or vulcanizing agent to chemically mar surfaces
- Easy to apply: separate from liner and "bump-it-on" with no screws, rivets or application equipment

193

Applied to the inside of cabinets or drawers, 3M™ Bumpon™ Quiet Clear Molded SJ6553 lets wood beauty or color show through. Soft elastomer mutes the slam upon closing. Patented cone shape damps sound more effectively than other shapes.

200

Durable pressure sensitive acrylic or rubber adhesives go on fast with just finger pressure. Saves time and money with no screw holes, glue mess, and drying time.

201

3M™ Bumpon™ Protective Product SJ5312 is a clear cylinder that blends with glass or acrylic cutting boards and similar applications requiring near invisibility. Resists yellowing with age.

202

203

For feet on a crock pot cooker (left), low profile 3M™ Bumpon™ Protective Products perform more reliably than high profile, because low profile better withstands the load and shear stress. High profile (right) allows better heat dissipation in electrical or electronic equipment.

Product Information:

Product	Color	Adhesive[1]	Shape	Width in. (mm)	Height in. (mm)	Hardness (Shore A)	Comments
Quiet Clear							
SJ6503	Clear	R-25	Hemisphere	0.440 (11.2)	0.200 (5.1)	55	Clear, sound damping properties.
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	0.140 (3.6)	0.140 (3.6)	75	Universal color matching. Nonslip. Ideal for picture framing.
SJ5412	Opaque, Bright White	A-20	Cylindrical	0.140 (3.6)	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 heaver items like glass or liftgate.
SJ5302	Transparent	A-20	Hemisphere	0.312 (7.9)	0.085 (2.2)	75	For feet on small electronics.
SJ5303	Transparent	A-20	Hemisphere	0.440 (11.2)	0.200 (5.1)	75	Popular small shape matches many surfaces
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 Flat Top	Hexagonal Width	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.

[1]**A-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.

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 – Custom Shapes

More possibilities for shape, size, color, and a touch of quiet

Custom 3M™ Bumpon™ Protective Products expand the possibilities for shape, size, color, and applications beyond the standard line. The performance and savings are the same:

- Customize by one of three pressure sensitive adhesives to bond fast and permanently when pressed to most clean, dry, and smooth surfaces
- Resilient elastomer will not dry out, rot, or embrittle; cushions and damps noise indefinitely
- High coefficient of friction resists skidding on most surfaces
- Contains no corrosive plasticizer or vulcanizing agent to chemically mar surfaces
- Easy to apply: separate from liner and "bump-it-on" with no screws, rivets or application equipment

204

As a foot and spacer on the bottom of electronic equipment, custom 3M™ Bumpon™ Products allow heat dissipation, protect the surface, and resists skidding.

205

On specialty items such as a trophy, custom 3M™ Bumpon™ Protective Products cushion and protect a desk top or shelf from scratches.

206

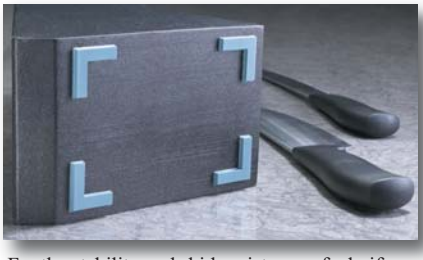
When you want a little touch of quiet and skid resistance for a PDA or other small product, custom 3M™ Bumpon™ Protective Products are scaled for the design. Adhesive is formulated to hold even with a smaller bonding surface.

207

With permanent resiliency and high coefficient of friction, custom 3M™ Bumpon™ Protective Products provide a soft touch and sure grip for pliers.

208

Customized clear cushions made from 3M™ Bumpon™ Protective Product material blend with the laptop computer base. High coefficient of friction helps keep the computer in place.



209

For the stability and skid-resistance of a knife block, 3M™ Bumpon™ Protective Product is customized as a flat, right angle for permanent adhesion to each corner.

Product Information:

	Product	Color[1]	Adhesive[2]	Shape	Width in. (mm)	Height in. (mm)	Hardness (Shore A)	Comments
	Customized Shapes*							
Cylindrical	SJ5363	Transparent	A-20	Cylindrical/ Hemispherical Top	0.858 (21.8)	0.224 (5.7)	75	Larger cylindrical - clear version.
	SJ5721	Gray	R-30	Cylindrical with Recess	1.299 (33.0)	0.314 (8.0)	70	Cylindrical with unique center recess.
	SJ5763	Gray	R-30	Cylindrical with Hemispherical Top	0.858 (21.8)	0.224 (5.7)	70	Larger cylindrical - opaque version.
	SJ5796	Black	R-30	Cylindrical with Hemispherical Top	0.363 (9.2)	0.199 (5.1)	70	Cylindrical with slight dome to top.
	SJ6145	Black, White	R-25	Cylindrical	0.500 (12.7)	0.025 (6.4)	70	Taller cylindrical w/"quick stick" R-25 adhesive.
Hemisphere	SJ5378	Transparent	A-20	Hemispherical with Flat Top	0.400 (10.2)	0.130 (3.3)	75	Cylindrical with small flat top area - clear version.
	SJ5402	Black	A-20	Hemispherical	0.312 (7.9)	0.085 (2.2)	75	Smaller profile for use on hand-held electronics.
	SJ5733	White	R-30	Hemispherical	0.376 (9.5)	0.200 (5.1)	70	Hemispherical slightly taller than SJ5006.
	SJ5741	Black	R-30	Hemispherical	0.375 (9.5)	0.219 (5.4)	70	Taller hemispherical.
	SJ5770	Black	R-30	Hemispherical	0.312 (7.9)	0.05 (1.3)	70	Thin version hemispherical.
	SJ5778	White	R-30	Hemispherical with Flat Top	0.400 (10.2)	0.130 (3.3)	70	Cylindrical w/small flat top area - opaque version.
	SJ5792	Gray	R-30	Hemispherical	0.315 (8.0)	0.145 (3.7)	70	Small diameter version hemispherical.
Rectangular	MB1104-101	Black	R-30	Rectangular	0.315 x 0.709 (8.0 x 18.0)	0.236 (6.0)	70	Larger, flat surface, rectangular.
	SJ5349	Transparent	A-20	Rectangular	0.625 x 1.50 (15.9 x 38.1)	0.400 (10.2)	75	Rectangular with unique tapered sides - clear version.
	SJ5369	Transparent	A-20	Rectangular	0.213 x 0.65 (5.4 x 16.5)	0.062 (1.6)	75	Flat-topped rectangle.
	SJ5384	Transparent	A-20	Rectangular	0.213 x 0.65 (5.4 x 16.5)	0.123 (3.1)	75	Curved top rectangle.
	SJ5474	Light Gray	A-20	Tapered Rectangular	0.2 x 0.375 (5.0 x 9.5)	0.065 (1.65)	75	Flat-topped rectangle.
	SJ5711	Black	R-30	Rectangular	0.245 x 0.96 (6.2 x 24.4)	0.100 (2.5)	70	Flat-topped rectangle.
	SJ5737	Black	R-30	Rectangular	0.236 x 0.59 (6.0 x 15.0)	0.138 (3.5)	70	Flat-topped rectangle.
	SJ5739	Black	R-30	Rectangular	0.350 x 0.73 (8.9 x 18.5)	0.310 (7.9)	70	Flat-topped rectangle.
	SJ5742	Black	R-30	Rectangular	0.354 x 0.728 (9.0 x 18.5)	0.180 (4.6)	70	Flat-topped rectangle.
	SJ5743	Black, White	R-30	Rectangular	0.312 x 1.0 (7.9 x 25.4)	0.062 (1.6)	70	Flat-topped rectangle with recess.
	SJ5749	Black	R-30	Rectangular	0.625 x 1.50 (15.9 x 38.1)	0.400 (10.2)	70	Rectangular with unique tapered sides - opaque version.
	SJ5762	Black	R-30	Rectangular with Rounded Ends	0.5 x 0.94 (12.7 x 23.9)	0.130 (3.3)	70	Rectangular - tapered top with curved ends.
	SJ5779	Black	R-30	Rectangular	0.52 x 0.77 (13.2 x 19.6)	0.180 (4.6)	70	Flat-topped rectangle.
	SJ5787	Sunlight Purple	R-30	Rectangular with Rounded Ends	0.243 x 1.037 (6.2 x 26.3)	0.155 (3.9)	70	Rectangular - curved top ("hot dog").
	SJ5797	White	R-30	Rectangular with Rounded Ends	0.477 x 0.675 (12.1 x 17.1)	0.139 (3.5)	70	Flat-topped rectangle.
	SJ5799	Black	R-30	Rectangular	0.339 x 0.476 (8.6 x 12.1)	0.142 (3.6)	70	Flat-topped rectangle.
Square	SJ53B6	Clear	A-20	Square Base with Cylindrical Top	0.812 (20.6)	0.620 (15.7)	75	Square with flat, circular top - clear version.
	SJ5346	Transparent	A-20	Tapered Square	0.906 (23.0)	0.235 (6.0)	75	Large square with flat top - clear version.
	SJ5389	Transparent	A-20	Square	0.786 (20.0)	0.255 (6.5)	75	Slightly taller version of SJ5346.
	SJ57B3	Black	R-30	Square with Rounded Corners	0.50 (12.7)	0.134 (3.4)	70	Square with rounded corners - low profile.
	SJ57B6	Black, White	R-30	Square Base with Cylindrical Top	0.812 (20.6)	0.620 (15.7)	70	Square with flat, circular top - opaque version.
	SJ5746	Black, White, Gray	R-30	Tapered Square	0.906 (23.0)	0.235 (6.0)	70	Large square with flat top - opaque version.
	SJ5765	Black	R-30	Square	0.437 (11.1)	0.230 (5.8)	70	Medium square with flat top.
	SJ5789	Black	R-30	Square	0.786 (20.0)	0.255 (6.5)	70	Slightly taller version of SJ5746.
	SJ6122	Black	R-25	Tapered Square Rounded Corners	0.410 (10.4)	0.125 (3.2)	70	Tapered square - w/"quick stick" R-25 adhesive.
Other	SJ5726	Black	R-30	Oval	0.266 (6.8)	0.059 (1.5)	70	Flat-topped oval shape.
	SJ5755	Black	R-30	Oval	0.213 x 0.764 (5.4 x 19.4)	0.125 (3.2)	70	Flat-topped oval shape.
	SJ5759	Black	R-30	"L" Shaped	1.063 (27.0)	0.125 (3.2)	70	L-shaped symmetrical right angle corner.
	SJ5781	Black	R-30	Elliptical	0.359 (9.1)	0.155 (3.9)	70	Unique hemispherical-topped oval.

[1] Additional custom colors and color matching are available at an additional charge. *Made to order products. Available with 10-day lead time. Minimum order 30,000 pieces.

[2] **A-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™ Bumpon™ Protective Products – Polyurethane and TPE Rollstock

Die-cut to meet precise size and shape requirements

With 3M™ Bumpon™ Protective Products material in rollstock, converters can die-cut feet, spacers, and cushions in virtually any shape and size. The performance and savings are the same as the standard line:

- Pressure sensitive adhesives bond fast and permanently when pressed to most clean, dry, and smooth surfaces
- Resilient elastomer will not dry out, rot, or embrittle; cushions and damps noise indefinitely
- High coefficient of friction resists skidding on most surfaces
- Contains no corrosive plasticizer or vulcanizing agent to chemically mar surfaces
- Easy to apply: separate from liner and "bump-it-on" with no screws, rivets or application equipment

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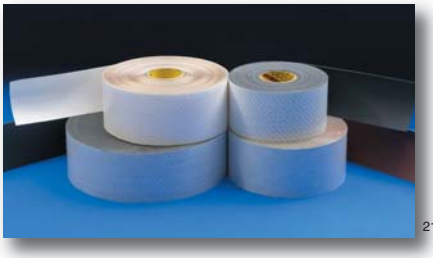
Die-cut to fit in the bottom of a cup holder, 3M™Bumpon™ Protective Product material provides a high coefficient of friction to help stabilize a cup. Permanently resilient elastomer cushions indefinitely.



211

3M™Bumpon™ Protective Products rollstock is available in a wide range of lengths and widths with a choice of acrylic, rubber, and synthetic rubber adhesives for bonding to virtually any surface.

212

A sheet of 3M™ Bumpon™ Protective Product rollstock covers the bottom of a storage tray in an automotive console and helps keep items from sliding out.

213

Attached to the inside edge of a cup holder, parallel strips of 3M™ Bumpon™ Protective Product rollstock flex and contour to grip the sides of different sized cups.

214

As a nose guard spacer on a vehicle's front end, a die-cut strip of 3M™ Bumpon™ Protective Product rollstock helps protect the finish from scratches caused by high velocity rubbing.

215

216

Select clear, black, or brown rollstock for applications ranging from a nonslip counter mat (left) to a picture frame (right). 3M™ Bumpon™ Protective Products provide a safety margin to protect surfaces against scuffing. High coefficient of friction also helps keep the mat in place and the frame straight.

Product Information:

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 Series[3]								
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 Series[3]								
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 Series[3]								
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 Series[3]								
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 SJ-5916.
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 SJ-5916.
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 SJ-5916.
6000 Series[3]								
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 Series[3]								
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 PET	3 (.07)	90	Economical, easy to die cut and press, ready for converting.
SJ6816	Black	Extruded TPE	62 (1.5)	64 Shore A	Acrylic PET	3 (.07)	80	Economical, easy to die cut and press, ready for converting.
SJ6832	Black	Extruded TPE	28 (0.7)	64 Shore A	Acrylic PET	3 (.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™ Clean-View Pads

Reliable protection against paint overspray

This clear multi-sheeted adhesive system protects paint booth windows and light fixtures from overspray. You reduce the labor expense, downtime, and amount of chemicals used for cleanup.

- Clear polyethylene keeps paint out and lets light through to help brighten the work area
- Individually tabbed sheets for easy removal from the pad
- Eliminates re-application of single layer protection films
- Acrylic adhesive system for adhesion to glass surfaces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Reliable protection is easy with 3M™ Clean-View Pads. Simply remove the clear protective liner to expose adhesive. Adhere the top adhesive edge to a dry, clean surface and squeegee over the bond area. When the sheet becomes contaminated, peel away to reveal a fresh, ready-to-use sheet.


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For large and small painting operations, 3M™ Clean-View Pads protect windows and light fixtures from overspray.


219

3M™ Clean-View Pads help reduce the cost, downtime, and chemicals used in conventional cleanup.


220

The individually tabbed and numbered sheets of 3M™ Clean-View Pads remove quickly and easily exposing a clean sheet ready for immediate use.

Product Information:

Product	Sizes In. (mm)	Pad/Adhesive/ Color	Sheets/ Pad	Sheet Thickness	Adhesion to Steel	Tensile Strength @ Break	Comments
5850	13 x 51 (330 x 1295)	Polyethylene/Clear/ Acrylic	20	1.5 mil (0.04 mm)	8.3 oz/in (9.1 N/100 mm)	5.1 lb/in (89.3 N/100 mm)	Ideal for paint booth operation. Protects from paint overspray.
5850	18 x 46 (457 x 1168)	Polyethylene/Clear/ Acrylic	20	1.5 mil (0.04 mm)	8.3 oz/in (9.1 N/100 mm)	5.1 lb/in (89.3 N/100 mm)	Ideal for paint booth operation. Protects from paint overspray.
5850	24 x 50 (609 x 1270)	Polyethylene/Clear/ Acrylic	20	1.5 mil (0.04 mm)	8.3 oz/in (9.1 N/100 mm)	5.1 lb/in (89.3 N/100 mm)	Ideal for paint booth operation. Protects from paint overspray.

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

3M™ Clean-Walk Mats

Capture dirt on contact before tracking it from one area to another

Between areas within a plant or between the plant and the office these adhesive mats capture dirt on contact from shoe soles, wheels, and other passing objects.

- Individually tabbed sheets remove easily to expose a fresh sheet
- Individually numbered sheets ensure one sheet removal at a time
- Large adhesive area allows two full steps

Unframed mats adhere to most smooth, clean and dry floors such as tile or concrete. Removes cleanly.

Framed mats are adhered to a plastic frame. Frame's nonskid back maintains position on carpet and other surfaces. Replacement pads/mats install easily to the reusable frame.

To preserve the cleanliness and appearance of floors and carpets, 3M™ Clean-Walk Mats reduce the amount of dirt passing between areas.

Product Information:

Product	Sizes In. (mm)	Pad/Adhesive/ Color*	Sheets/ Pad	Sheet Thickness	Adhesion to Steel	Tensile Strength @ Break	Elongation @ Break (%)	Comments
5830	18 x 36 (457 x 914)	Polyethylene/White/ Acrylic	30	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
5830	18 x 46 (457 x 1168)	Polyethylene/White/ Acrylic	30	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
5830	25 x 45 (635 x 1143)	Polyethylene/White/ Acrylic	30	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
5836	18 x 36 (457 x 914)	Polyethylene/White/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
5836	18 x 46 (457 x 1168)	Polyethylene/White/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
5836	25 x 45 (635 x 1143)	Polyethylene/White/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
5838	36 x 46 (914 x 1168)	Polyethylene/White/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Adhesive-backed mat ideal for concrete and other smooth floor surfaces.
Clean-Walk Mats – Framed								
5840	31.5 x 25.5 (914 x 1168)	Polyethylene/White/ Pad on White Frame/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Nonskid framed mats are ideal for carpeted surfaces and are completely portable and reusable.
5840	31.5 x 25.5 (914 x 1168)	Polyethylene/White/ Pad on Black Frame/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Nonskid framed mats are ideal for carpeted surfaces and are completely portable and reusable.
Clean-Walk Replacement Pads for Framed Mat								
5842	30 x 24 (762 x 609)	Polyethylene/White/ Acrylic	60	1.45 mil (0.037 mm)	7.9 oz/in (8.6 N/100 mm)	4.5 lb/in (4.9 N/100 mm)	208%	Replacement pads, for use on reusable plastic frame, install quickly and easily.

* For information regarding mats in blue and gray colors, please contact your local 3M representative.

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

3M™ Scotchgard™ Invisible Transit Film

Easy, cost-effective graffiti removal

Transit authorities can spend millions annually to maintain and repair interior windows and glass. Specialized labor for replacing glass and materials cost add up quickly.

Now on interior windows you can simply peel away graffiti again and again with 3M™ Scotchgard™ Invisible Transit Film.

With **four layers of protection**, you save time and money while maintaining windows that are free from "scratchiti" and acid-etched marks. When one layer is defaced, simply peel it away to refresh the window quickly and easily.

- Minimal training
- Clean removal of each layer with no adhesive residue on the glass; single layer alternatives leave residue and require 3X more window cleaning procedures
- High clarity for glass-like appearance
- A clean, clear view helps improve ridership

223

Easy-to-apply 3M™ Scotchgard™ Invisible Transit Film adheres to any flat glass that is free of dirt, debris, and oils. Four layers are as clear as glass to see through.

224

225

With 3M™ Scotchgard™ Invisible Transit Film on the inside of public transportation windows, vandals deface one layer of four protective layers not the glass. The defaced layer is simply and cleanly removed to reveal a new layer of protection. 3M optimized adhesives provide long-term adhesion and clean, easy removal between each layer and the last layer and the glass.

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Each layer can be removed with a film removal tool. A maintenance worker simply picks and lifts the corner, then peels off the defaced sheet.

Product Information:

Product	Backing/ Adhesive	Backing Thickness	Base Layer Adhesion to Glass	Layer-to Layer Adhesion	Visible Light Transmission	Haze	Clarity	Comments
ASTM Test:		D-3652	D-3330	D-3330	D-1003	D-1003	D-1003	
1004	Polyester/ Acrylic	19.5 mils (0.5 mm)	23 oz./in. 25 N/100 mm)	11 oz.in. 12 N/100 mm)	82%	6.5%	93%	Transit vehicles interior glass surfaces.

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

3M™ Polyurethane Protective Tapes – Long Term

Long term protection against erosion, abrasion, corrosion, impact, UV light, and vandalism

This line of stick-on-contact tapes provides a durable barrier for many indoor or outdoor applications in metal finishing, building maintenance, aerospace, transportation, and general industrial.

- Fast application with no tools or special equipment; ready to use within 60 minutes, fully bonded within 24 hours
- Reduces maintenance costs by preserving surface integrity with a durable barrier against all of the following:
  - Abrasion and scratches
  - Impact from foreign objects
  - Erosion or degradation from natural elements such as sand, sleet, snow, rain, and wind
  - UV sunlight (outdoor tape)
- Conformable to fit surface geometries

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Aircraft radomes are protected against particle and rain erosion with transparent 3M™ Preformed Boots. The boots conform and adhere on contact to the curvature.

Product Information:

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 vinyls.
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.

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

3M™ Protective Tapes – Short Term

Short-term protection against scratching, marring, chipping, abrasion, and UV

These rugged 1 to 5 mil tapes adhere and conform to protect product surfaces during production, packaging, shipping and installation. Tack level varies depending on the tape. All remove cleanly once the product is in the hands of the end user.

A variety of backings are available and each offers key characteristics:

Polyethylene Tapes

- Transparent with good abrasion resistance
- Cost-effective

UV Tapes

- Transparent or blue with enhanced outdoor UV resistance

Continued on page 54.

During manufacturing and transport, transparent 3M™ Polyethylene Protective Tapes protect many finished automotive interior surfaces from abrasion, nicks, and scratches. Clear acrylic adhesive holds with very low tack for easy removal.

Product Information:

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						
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 pinstriping 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 pinstriping, 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 pinstriping, decals and lettering.
3179	Polyethylene/Acrylic	3 (0.08)	20	High	450	Nonskid fiberglass. Fabric seams and headliners. Auto ABS scuff plates.

(continued on next page)

Product Information:

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)						
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.
3195EZ	Polyethylene/Acrylic	3 (0.08)	25	Very High	450	Treated carpet, low and high pile.
35A89	Polyethylene/Acrylic	4 (0.10)	16	High	450	Hot tubs, ABS matte, matte laminate, acrylic, HDPE.
4112	Polyethylene/Acrylic	4 (0.10)	3	Low	450	Premask for vinyl decals and pinstriping. 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.
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.
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).
4F94	Polyethylene/Acrylic	4 (0.10)	20	High	600	Flame retardant carpet tape complies with IMO resolution A-653 (16) for cruise lines.
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 customer service at 1-800-241-2031.
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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Covered with 3M™ UV Protective Tape, plastic surfaces such as refrigerator dairy doors or vegetable crispers stay new looking through transit and display in the store.


230

3M™ UV Protective Tapes protect automotive mirror finishes from abrasion and marring. UV-stable backing resists the effect of UV exposure for up to 3 months.


231

3M™ Protective Tape applied to the metal control panel of a stove protects the paint against abrasion, scratches, and dirt during subsequent assembly steps, warehousing, and shipping.

3M™ Protective Tapes – Short Term – continued

Short-term protection

(continued from page 52)

Carpet Tapes

- Transparent with easy unwind

Cold Seal®* Tapes

- Clear film seals to itself for packaging small parts

Co-Extruded "A" Tapes

- Puncture resistance and break strength surpass many typical LDPE films

Co-Extruded Black/White Tapes

- UV resistance up to 6 months

Polyester Tapes

- Best choice for clarity with excellent heat and puncture resistance

Polypropylene Tapes

- Good resistance to heat, abrasion, and UV

232

To help ensure a scratch-free surface for the end user, 3M™ Co-Extruded "A" Tape is applied after final finishing to sinks, spas, and countertops prior to packaging. Enhanced abrasion and puncture resistance protects the surface through shipping and installation. Tape then removes cleanly.

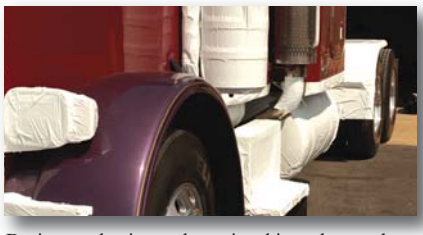
Product Information:

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® 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.

(continued on next page)

233

3M™ Protective Tapes protect decorative metal light switches and kick plates. Cold-Seal® Films keep screws together and prevent them from scratching other items in the package.



234

During production and transit, white polypropylene tape protects truck surfaces such as rocker panels, chrome finishes, mirrors, lights and lenses.

235

Applied over automotive lights, 3M™ Co-Extruded Black/White Tapes offer UV resistance for up to 6 months while protecting the glass and other surfaces from abrasion and scratching.

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 "A" Tapes (continued)						
2A26	Co-Extruded/Acrylic	2 (0.05)	9	Moderate	600	Painted, embossed, metal building panels, canopies and molded fiberglass.
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	3 (0.08)	7	Moderate	600	Semi-gloss painted metals and plastic surfaces. Automotive moldings.
25A26	Co-Extruded/Acrylic	3 (0.08)	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.
2A29	Co-Extruded/Acrylic	2 (0.05)	10	Moderate	600	Brushed aluminum. Textured, plastic automotive moldings. Offers superior protection for mill finished aluminum and steel surfaces.
5A29	Co-Extruded/Acrylic	5 (0.13)	10	Moderate	600	Offers superior protection for mill finished aluminum and steel surfaces.
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.
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.
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 surface
346/Tan	Flat Paper Stock/Rubber	17 (0.42)	22	Very high	4	Heavy-duty protective tape.
9343/Black	Nonwoven/Acrylic	17 (0.43)	27	Very high	400	Conformable for irregular shaped parts.

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

** Value measured as a cohesive bond strength in units. Note:This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Sandblast Stencil Products and Impact Stripping Tapes

Thick, durable rubber backing for demanding surface protection

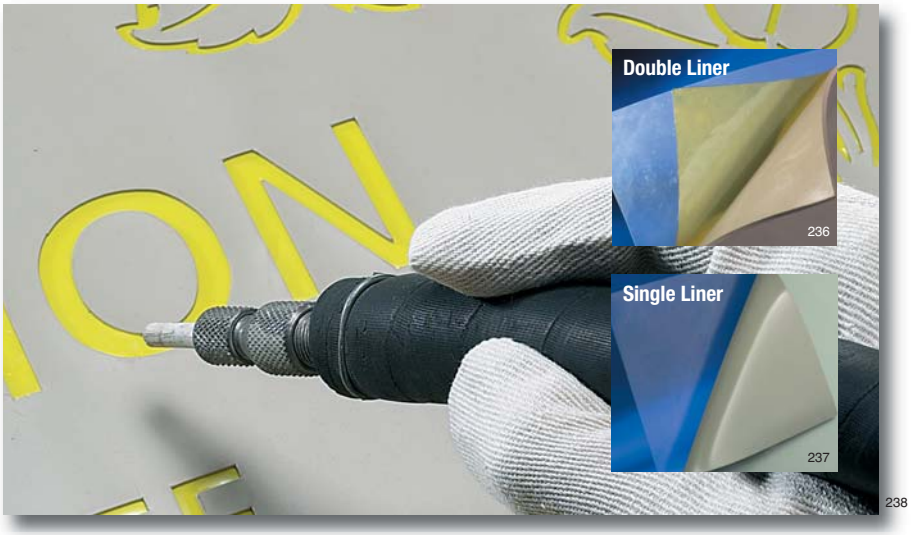
Combining 32-80 mil thick rubber backing with aggressive pressure sensitive adhesive, these products meet the rigors of two tough masking applications:

3M™ Sandblast Stencil Products

- Rubber thicknesses ranging from 32-40 mils withstand the heavy blasting used to create crisper, deeper images in stone, wood, and other surfaces
- Uniform backing thickness helps ensure efficient plotter cutting
- Clean, visible cut marks reduce picking and weeding time
- Adhesive adheres to numerous surfaces and removes cleanly
- Advanced rubber backing formulation prevents stretching and design distortion

3M™ Impact Stripping Tapes

- Choice of 32 or 80 mil rubber backing for surface protection during media stripping processes



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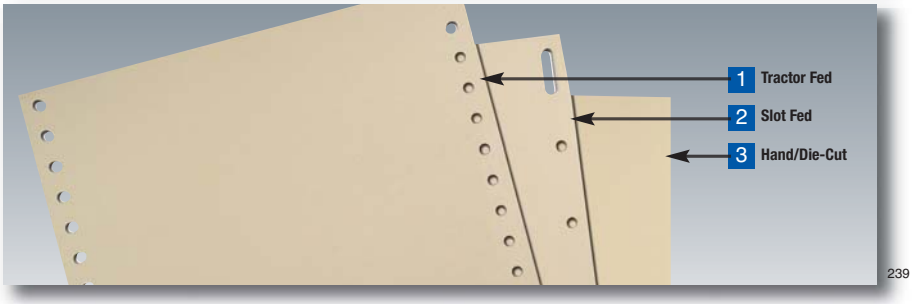

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For cost-effective production and consistent professional results, 3M™ Sandblast Stencils are available with single or double liners for friction, slot and tractor fed plotters as well as hand and die-cutting. Single liners maintain design integrity with either computer or stencil press equipment. Double liners provide support for "islands" eliminating the need for application tape.

240

For blasting wood and foam signs, the balanced adhesive system of 3M™ Sandblast Stencil Tapes removes cleanly without staining or residue.

241

3M™ Sandblast Stencil Tapes offer the durability and consistent thickness that is required when blasting marble or granite.


242

Uniform stencil thickness and quality hole punch allow smooth and productive design cutting.

243

3M™ Performance Plus Duct Tape 8979 is ideal for field blasting to help protect surrounding granite surface from blasting impact and rebound damage. Aggressive adhesive stays in place yet removes clean without residue.


244

For clean, intricate designs, cut marks on 3M™ Sandblast Stencil 519YP2 are clean and visible for easy and precise picking and weeding.


245

Abrasion-resistant rubber backing and acrylic adhesive of 3M™ Impact Stripping Tapes protect surfaces during plastic media blasting.

Product Information:

Product/ Color	Adhesive Type	Liner Material and Thickness mils (mm)	Total Thickness Backing/ Adhesive/Liner mils (mm)	Product Formats				Adhesion Level			Comments
				Gerber Compatible (Slot Fed)	IBM Compatible (Tractor Fed)	Friction Fed[1]	Hand-Cut and/or Die-Cut	Low	Medium	High	
Double Liner											
519Y/Tan[2]	Rubber	Polyester 1.5 Polypropylene 2.0	45				•		•		Yellow, translucent polyester inner liner. White, polypropylene outer liner.
519YS/Tan				•							
519YT/Tan					•						
519YP2/Tan[2]	Rubber	Polyester 1.5 Polyester 2.0	48				•			•	Yellow, translucent polyester inner liner. Extra thick, translucent polyester outer liner. Highest adhesion level for double linered products. Wide format available.
519YP2S/Tan				•							
519YP2T/Tan					•						
519YP/Tan	Rubber	Polyester 2.0 Polyester 4.0	50			•			•		Translucent polyester inner liner. Extra thick, translucent polyester. Wide format available.
519YPT/Tan					•						
Single Liner											
507/Green	Rubber	Polyethylene 2.0	43				•	•			Green, high release liner. Butter "cut". Ideal for letter press operations.
510/Green	Rubber	Polyester 4.0	42				•	•	•		Translucent, easy liner release. Use on wood and painted surfaces.
520/Tan	Gray Rubber	Polyester 2.0	45				•				Translucent, high liner release. Best blast resistance for single liner products.
520S/Tan				•					•	•	
520T/Tan					•						
520ETL/Tan[2]	Gray Rubber	Polyester 4.0	44				•			•	Extra thick, translucent liner.
1532/Green	Rubber	Polyester 4.0	32				•				Extra thick, translucent, high liner release. Highest adhesion for single liner products. Excellent for intricate designs. Conformable for use on irregular surfaces.
1532S/Green				•					•		
1532T/Green					•						

Temperature Range on all tapes is 50–120˚F, except 500 and 528, where range is -20 to 150°F (-29 to 66°C).

Product/ Color	Tape Structure (Backing/Adhesive) (Liner)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Adhesion to Glass oz./in. (N/100 mm)	Adhesion to Granite oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Comments
ASTM Test Method:			D-3652	D-3652	D-3330	D-3759	D-3759		
Impact Stripping Tapes									
500/Green	Rubber/Acrylic (Paper)	32 (0.8)	33 (0.8)	25 (27)	N/A	N/A	25 (27)	85	Good for small lettering. Acrylic adhesive, ideal for use during plastic media blasting.
528/Tan	Rubber/Acrylic (Paper)	80 (2)	85 (2.2)	38 (41)	21	N/A	18 (313)	145	85 mil 500 backing.

Temperature Range on all tapes is 50–120˚F, except 500 and 528, where range is -20 to 150°F (-29 to 66°C).

Product	Coating Base	Color	Consistency	Available Size	Comments[3]
Fillers					
2	Rubber	Light Beige	Syrupy	Quarts, Gallons	Designed for smooth and polished surfaces. More aggressive than #3.
3	Rubber	Light Beige	5x more viscous than Filler #2	Gallon	Typically used on axed or frosted surfaces.

[1] Rubber is trimmed back to expose 1-1/4" of polyester liner for use with friction feed plotters.
[2] May be used with friction feed plotters.
[3] 3M™ Double Coated Tapes 463 and 465 can be used in place of fillers. Excellent for use with pavers, bricks and on-site blasting.

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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247


248

3M™ Sandblast Stencil 519YP2, with its easy-to-see yellow inner liner, enhances the monument process by providing more precise picking power for greater productivity, blasting accuracy and liner residue cleanup. The advantage of yellow versus a colorless liner is especially important when working with intricate details.

3M™ Specialty Tapes

Selection simplicity for a wide variety of applications

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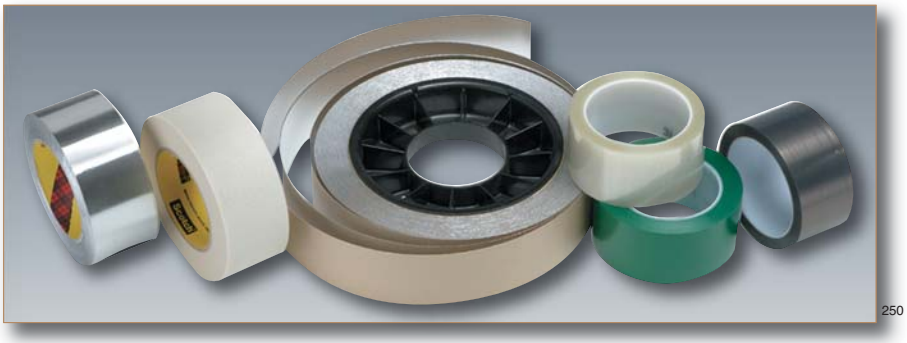
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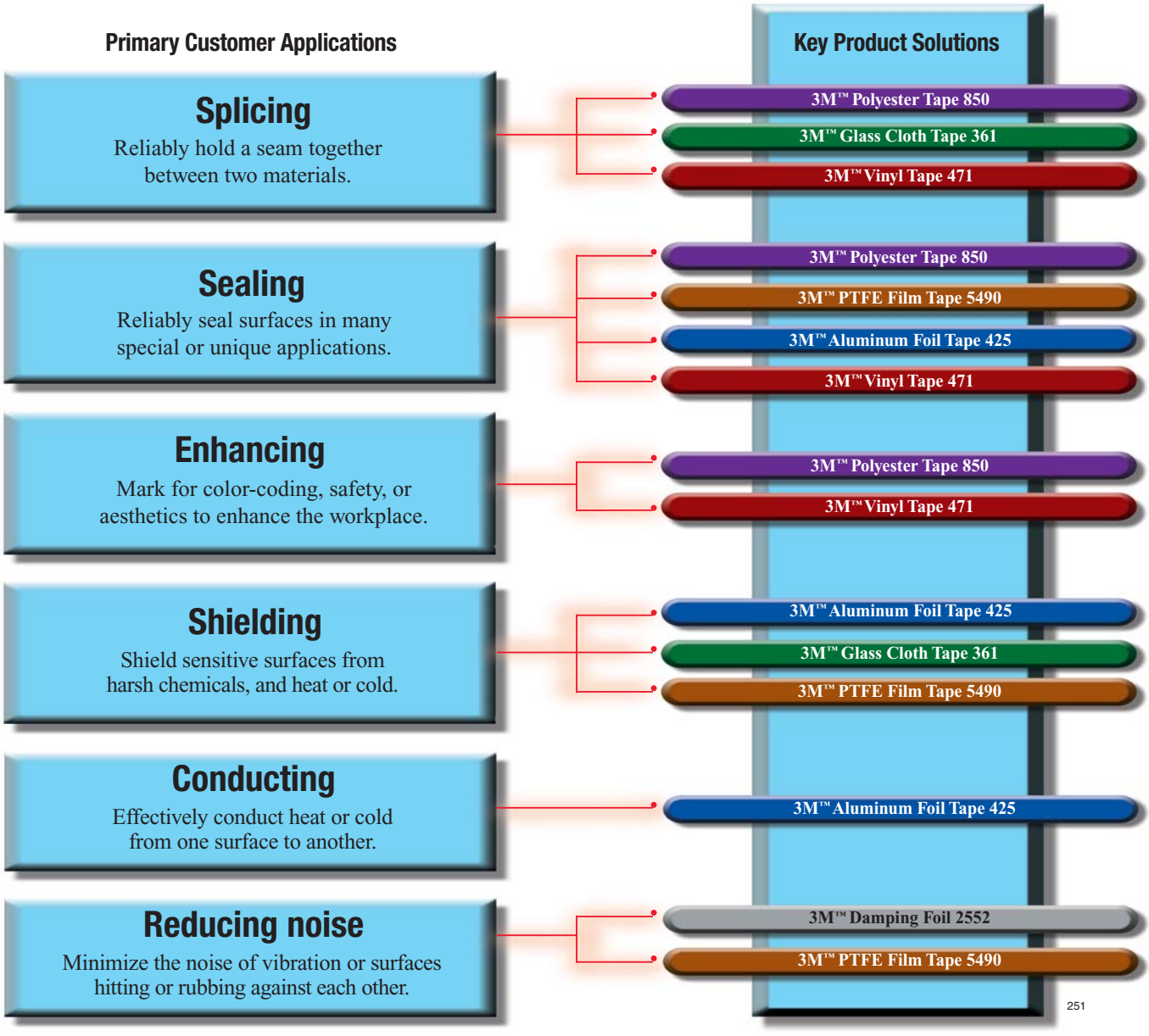
With more than 120 product solutions, the portfolio of 3M™ Specialty Tapes presents customers with numerous characteristics to evaluate in making the optimum choice for an application.

To help simplify and streamline the selection process, six products have been highlighted for their versatility. These Specialty Six solve 80% of customer application needs. The six represent the key backings that comprise much of the 3M™ Specialty Tapes line: glass cloth, metal foil, polyester, slick surface (PTFE), and vinyl.



Six Products for 80% of Customer Applications:

Vinyl Tapes

1

3M™ Vinyl Tape 471

252

- Easily apply color-coding, markings, and identification to aisles, lanes, hazard areas, tools, and equipment
- "Color throughout" construction resists scrapes, wear, and chemicals
- Fine line paint masking
- Protect surfaces against abrasion and chemicals

- Add decorative trim that also reinforces and seals
- Splice with high visibility
- Seal riveted seams

See pages 70-71 for additional solutions

Aluminum Foil Tapes

2

3M™ Aluminum Foil Tape 425

253

- High thermal conductivity enhances efficiency of heating or cooling
- High heat reflectivity to protect temperature-sensitive materials against heat damage and hot spots
- Protect parts from flame damage

- Seal and protect from dust and moisture
- Solvent resistant to seal and protect sensitive surfaces
- Resist UV degradation for long-term performance

See pages 62-63 for additional solutions

Polyester Tapes

3

3M™ Polyester Film Tape 850

254

- Make butt and other splices that require high tensile strength and thin caliper
- Seal, protect, and reinforce in a wide variety of applications
- Color-code or decorate with long-term holding

- Transparency with clean removal and long-term clarity
- Broad temperature range

See pages 64-65 for additional solutions

Slick Surface Tapes

4

3M™ PTFE Film Tape 5490

255

- Low coefficient of friction for a slippery, self-lubricating surface
- Wrap web rollers with a slippery, low energy surface for smoother material movement
- Cover web former edges to minimize friction during folding

- Antistick for ready release and clean up of hot plastic; prevent plastic film from sticking to heat bar
- Protect surfaces against heat, chemicals, and friction

See page 68 for additional solutions

Damping Foils

5

3M™ Damping Foil 2552

256

- Reduce structure-borne noise in metal and composite panels and support structures
- Reduce vibrational fatigue to decrease wear and tear on parts and lower the risk of part loosening and displacement
- Converts vibrational energy to negligible heat that readily dissipates

- Pressure sensitive for easy application
- Eliminate stiffeners in some designs
- Effectively damp with as little as 10% surface coverage

See page 69 for additional solutions

Glass Cloth Tapes

6

3M™ Glass Cloth Tape 361

257

- Tensile strength 7x higher than typical polyester tapes
- Protect surfaces against abrasion and high temperatures
- Thermal spray masking

- Splice fabric and other textured surfaces when high tensile strength is necessary
- Protect against high temperature to pass FAA flame resistance regulations

See page 61 for additional solutions

3M™ Application Specific Tapes

Variety for many process and design solutions

With a choice of unique backing and adhesive combinations, this engineered line meets demanding applications for aerospace, graphic arts, electronics, metal finishing, automotive, and more.

Product/ Color	Tape Structure (Backing/ Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test Method:		D-3652	D-3652	D-3330	D-3759	D-3759		
Graphic Arts Tapes								
235/Black	Paper/Rubber	5.0 (0.13)	7.0 (0.18)	23 (25)	22 (385)	9	Up to 200°F (Up to 93°C)	Photographic masking.
256/White/Red/ Green	Paper/Rubber	5.0 (0.13)	6.7 (0.17)	25 (27)	20 (350)	5	Up to 200°F (Up to 93°C)	Write-on label tape. Color-coding, holding.
616/Ruby Red	UPVC*/Rubber	1.6 (0.04)	2.4 (0.06)	36 (39)	29 (508)	60	Up to 120°F (Up to 49°C)	Lithographers tape.[1]
850/Transparent	Polyester/Acrylic	0.9 (0.02)	1.9 (0.05)	30 (33)	28 (491)	120	-60 to 300°F (-50 to 150°C)	Prepress stripping.
856/Transparent	Polyester/Acrylic	1.0 (0.03)	2.0 (0.05)	20 (22)	25 (438)	90	-60 to 300°F (-50 to 150°C)	Econ.edge and hole reinforcing.
914/Blue	Paper/Acrylic	3.0 (0.08)	4.0 (0.10)	N/A	30 (525)	2	Up to 400°F (Up to 204°C)	Repulpable business forms, splicing.
2185/White	Polypropylene/ Rubber	2.7 (0.07)	3.4 (0.08)	41 (45)	15 (263)	25	Up to 250°F (Up to 121°C)	Photo album edging.
3051/White	Paper/Acrylic	3.3 (0.08)	3.6 (0.09)	4 (4)	39 (680)	2	Up to 150°F (Up to 66°C)	Very low tack.
8411/Transparent	Polyester/Acrylic	1.0 (0.03)	1.5 (0.04)	30 (33)	26 (455)	120	-60 to 300°F (-50 to 150°C)	Edge and hole reinforcing.
8412/Transparent	Polyester/Acrylic	4.6 (0.12)	6.3 (0.16)	42 (46)	120 (2100)	130	-60 to 300°F (-50 to 150°C)	Heavy-duty edge and hole reinforcing.
High Temperature Tapes								
5413/Amber	Polyimide/Silicone	1.0 (0.03)	2.7 (0.07)	20 (22)	33 (578)	60	-100 to 500°F (-73 to 260°C)	High temperature film tape.[4]
5414/Transparent	PVA/Synthetic	1.3 (0.03)	2.5 (0.06)	7 (8)	6.2 (116)	98	Up to 500°F (-18 to 260°C)	Water-soluble tape.
5419/Amber	Polyimide/Silicone	1.0 (0.03)	2.7 (0.07)	20 (22)	33 (578)	60	-100 to 500°F (-73 to 260°C)	Low static wave solder.[4]
5433/Amber	Polyimide/Silicone	1.0 (0.03)	2.7 (0.07)	20 (22)	33 (578)	60	-100 to 500°F (-73 to 260°C)	Linered 5419 tape.[4]
5563/Amber	Polyimide/Acrylic	1.0 (0.03)	1.65 (0.04)	4 (4.4)	33 (578)	60	Up to 500°F (260°C)	Non-silicone, low static.
Riveting Tapes								
685/Transparent/ Green	Polyester/Rubber	1.0 (0.03)	1.7 (0.04)	30 (33)	19 (330)	28	-20 to 150°F (-29 to 66°C)	Transparent film, green adhesive.
695/Yellow/White	Polyethylene/Acrylic	2.0 (0.05)	3.0 (0.08)	15 (16)	8 (140)	120	-20 to 120°F (-29 to 49°C)	Yellow film, white adhesive.
Venting Tapes								
394/White	Nonwoven/Acrylic	4.1 (0.10)	4.0 (0.10)	12 (13)	6 (100)	18	N/A	Air-permeable backing.
3294/Pink	Nonwoven/Acrylic	4.0 (0.10)	5.0 (0.13)	16 (18)	15 (260)	13	N/A	Most permeable venting tape.
3394/Pink	Nonwoven/Acrylic	4.0 (0.10)	4.1 (0.10)	10 (11)	9 (160)	13	N/A	Air-permeable backing.
Nylon Tapes								
855/Cream	Nylon/Rubber	2.0 (0.05)	3.2 (0.08)	55 (60)	31 (540)	470	80 to 400°F (27 to 204°C)	Composite bonding tape.
8555/Cream	Nylon/Rubber	5.0 (0.13)	6.0 (0.15)	60 (66)	69 (1208)	540	80 to 400°F (27 to 204°C)	Thick version 855 tape.
Other Specialty Tapes								
253/Tan	Paper/Silicone (Polyester)	N/A	7.5 (0.19)	49 (5.4)	N/A	N/A	Up to 200°F (93°C)	Silicone butt splicing tape. Unique silicone treated backing.
346/Tan	Flat paper stock/ Rubber	15 (0.38)	16.7 (0.42)	22 (24)	28 (490)	4	Up to 250°F (121°C)	Heavy-duty abrasion, moisture, UV protection.
838/White	Tedlar® Film/Acrylic	2.1 (0.05)	3.4 (0.09)	47 (51)	24 (420)	170	-100 to 225°F (-73 to 107°C)	Weather resistant film tape.[2,3]
5401/Tan	Fiberglass Reinforced Silicone/Silicone	8 (0.2)	9.3 (0.24)	12 (13)	220 (3853)	7	Up to 300°F	Non-stick traction surface. (150°C)
5461/White	Silicone Rubber/ Rubber	7.8 (0.19)	9.1 (0.23)	30 (33)	85 (1500)	165	Up to 200°F (93°C)	High friction roller tape.
5557/White	Polyester/ Paper/Acrylic	N/A	10.2 (0.26)	82 (90)	N/A	N/A	7 days @ 55°C, 95% RH	Water contact indicator. UL-969.
5558/White	Polyester/ Paper/Acrylic	N/A	6.0 (0.15)	28 (31)	N/A	N/A	7 days @ 55°C, 95% RH	Ultrathin water contact indicator.
5559/White	Paper/Acrylic	N/A	5.0 (0.13)	28 (31)	N/A	N/A	7 days @ 55°C, 95% RH	Ultrathin water contact indicator.
8067/Tan	Film/Acrylic	5 (0.13)	9.9 (0.25)	N/A	N/A	N/A	-40 to 176°F (-40 to 80°C)	Window and door sealing.
8087/Blue	Polypropylene/ Acrylic	N/A	2.9 (0.07)	24 (26)	31 (543)	150	-40 to 220°F (-40 to 105°C)	Construction seaming.
9343/Black	Nonwoven/Acrylic	6.0 (0.15)	17 (0.43)	27 (30)	5 (88)	400	-30 to 250°F (-34 to 121°C)	Conformable for irregular parts.
9968/White	Paper/Acrylic	3.2 (0.08)	4.0 (0.10)	N/A	25 (438)	N/A	Up to 400°F (204°C)	Repulpable casting paper splicing.

[1] MIL-T-40620A [2] MIL-T-22085 Amend 3,Type IV [3] F.A.R.25.853 (a) [4] Meets U.L. 510 for flame retardancy * UPVC is an unplasticized polyvinylchloride backing.

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

3M™ Glass Cloth Tapes

High tensile strength with choice of other properties

With a choice of high tensile strength glass cloth and silicone, acrylic, or rubber adhesives, this line meets demanding applications for Aerospace, Automotive, Commercial Vehicle, Construction, Marine, and more.

Depending on the specific tape, you have a choice of characteristics:

- Pass FAA flame resistance regulations
- Protect surfaces against abrasion
- Temperature resistance up to more than 450°F (232°C) for one hour – even higher for intermittent exposures

For seaming and sealing panels in aircraft cargo bays, 3M™ Glass Cloth Tape 398FR exceeds flame retardant standards F.A.R. 25.853 (a) and F.A.R. 25.855 (d). Pressure sensitive acrylic adhesive bonds on contact to many surfaces. High adhesion is secure for extended periods. Rugged cloth surface resists wear from heavy bags.

3M™ Traction Tape 5401 enhances friction on web rollers to help maintain constant traction and tension for the web material from start-up through wind-up.

With high tensile strength and rubber adhesive, 3M™ Glass Cloth Tape 365 reliably splices fabrics and other textured surfaces.

For thermal spray and plasma spray masking, 3M™ Glass Cloth Tape 361 with silicone adhesive performs reliably at up to 450°F (232°C). Passes FAA flame resistance regulations.

Product Information:

Product/ Color	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test Method:		D-3652	D-3652	D-3330	D-3759	D-3759		
Glass Cloth Tapes								
361/White	Glass Cloth/Silicone	5.4 (0.14)	7.5 (0.19)	38 (42)	182 (3190)	10	-65 to 450°F (-54 to 232°C)	General purpose glass cloth tape.[1]
362/Tan	Glass Cloth/Silicone	3.5 (0.09)	9.3 (0.24)	40 (28)	200 (2260)	7	-65 to 600°F (-54 to 315°C)	Protects surface from flame/ plasma spraying.
3615/3615L/White	Glass Cloth/Silicone (Film Liner)	3.5 (0.09)	6.5 (0.17)	35 (38)	190 (3327)	7	-65 to 450°F (-54 to 232°C)	High temperature resistance.
365/White	Glass Cloth/Rubber	4.8 (0.12)	8.3 (0.20)	52 (57)	139 (2430)	7	40 to 250°F (4 to 121°C)	Splicing textured surfaces. Thermosetting adhesive.
3650/White	Glass Cloth/Rubber (Film Liner)	4.8 (0.12)	8.3 (0.20)	52 (57)	139 (2430)	7	40 to 250°F (4 to 121°C)	Linered 365 tape. Thermosetting adhesive.
398FR/White	Glass Cloth/Acrylic (Film Liner)	5.0 (0.13)	7.0 (0.18)	38 (52)	130 (2452)	7	-20 to 250°F (-29 to 121°C)	Meets F.A.A. burn requirements.[1,2] Skip-slit liner for case at application.
398FRP/White	Glass Cloth/Acrylic (Film Liner)	5.0 (0.13)	7.0 (0.18)	38 (52)	130 (2452)	7	-20 to 250°F (-29 to 121°C)	Printed backing version of 398FR tape.[1,2]

[1] F.A.R. 25.853(a) [2] F.A.R. 25.855(d) Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Metal Foil Tapes

Choice of high performance foil tapes

With a choice of conformable backings and adhesives, this line of tapes meets demanding applications in Aerospace, Appliance, Transportation, Construction, Automotive, and MRO (Maintenance and Repair) segments.

3M™Aluminum Foil Tapes

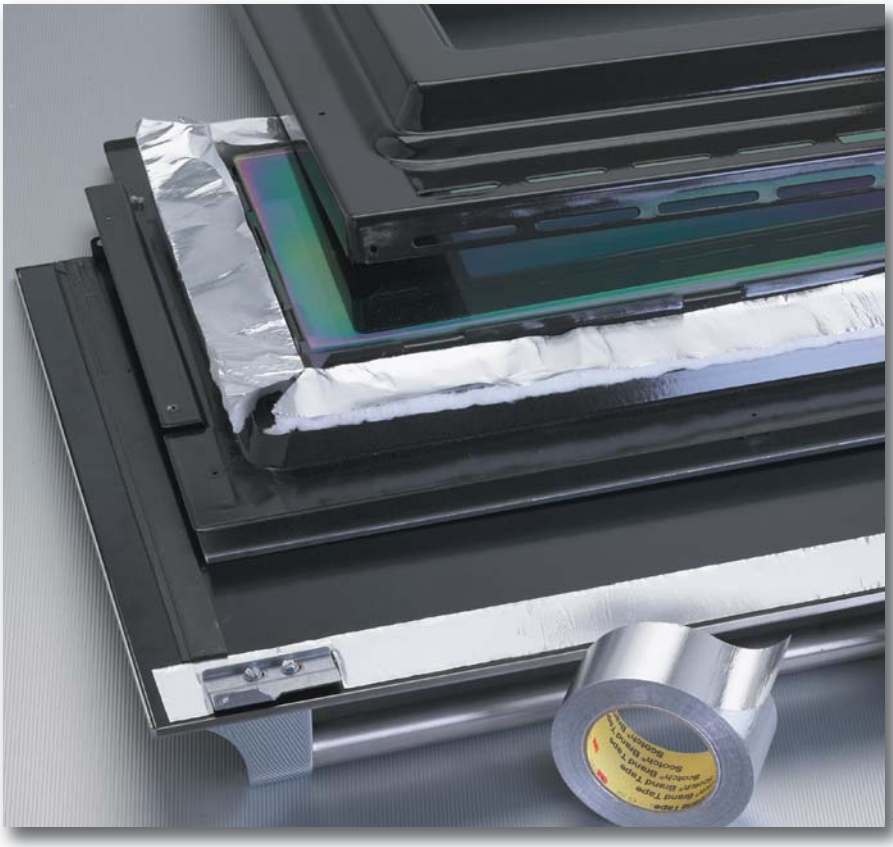
- Resist flame, moisture, weather, UV degradation, and most chemicals
- Thermally conductive for heating/cooling efficiency
- Heat and light reflective

3M™Aluminum Foil Reinforced Tapes

- Flexible flame-resistant wrap for wires and hoses
- Long wearing, tear and puncture resistant
- Flame and heat resistant

3M™Lead Foil Tapes

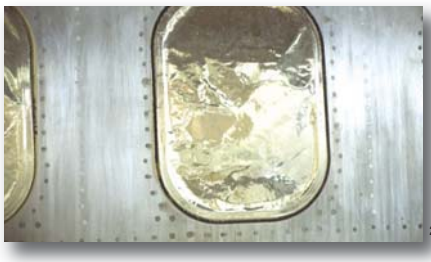
- Electrically conductive
- Acid resistant for plating masking
- Radiopaque for X-ray markers


263

3M™ Aluminum Foil Tape bonds on contact as heat shielding inside an oven door. Helps keep the exterior cool to the touch behind the handle and around the window perimeter.


266

With aggressive adhesive and dead soft aluminum, Scotch® Foil Tape 3311 seals and secures seams and joints for long-term durability. UL 723 Listed for duct sealing and general repairs.


264

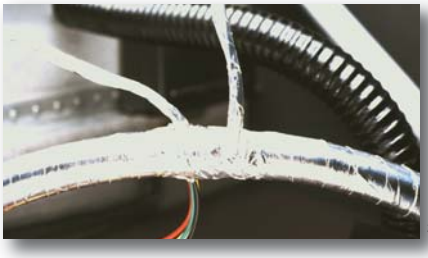
With conformability and chemical resistance, 3M™ Aluminum Foil Tapes protect aircraft windows during harsh chemical paint stripping.


265

With high heat reflectivity and thermal conductivity, 3M™ Aluminum Foil Tapes protect heat-sensitive components near lights in a garage door opener housing.


267

3M™FSK Facing Tape 3320 is engineered specifically as a vapor retardant tape to seal mineral wool foil-faced insulation, bare sheet metal ducts, and blanket style fiberglass duct insulation.


268

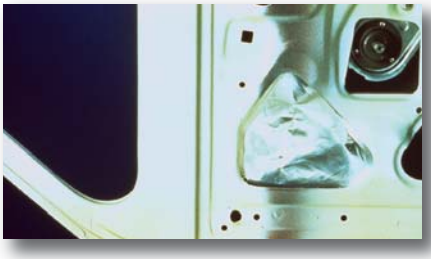
Tear-resistant 3M™ Reinforced Aluminum Foil Tape 363 bundles wire harnesses and helps protect wires, cables, and other flexible parts from heat.

269

Conformable 3M™ Aluminum Foil Tape securely holds copper cooling tubes to refrigerator panels. Thermal conductivity helps maximize cooling efficiency.

270

To seal fiberglass duct board and flexible duct systems, Scotch® Foil Tape 3326 meets the performance requirements for UL 181A-P and UL 181B-FX.



271

Applied over holes and cavities in the interior of a car or truck door panel, 3M™ Aluminum Foil Tape seals out moisture and dust.

Product Information:

Product	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test	Method:	D-3652	D-3652	D-3330	D-3759	D-3759		
Premium Performance Aluminum Foil Tapes								
425	Aluminum/Acrylic	2.8 (0.07)	4.6 (0.12)	47 (51)	30 (525)	8	-65 to 300°F (-54 to 149°C)	Most versatile aluminum tape.[1,2,3,4]
427	Aluminum/Acrylic	2.8 (0.07)	4.6 (0.12)	50 (55)	30 (525)	8	-65 to 300°F (-54 to 149°C)	Lined version 425 tape.[2,3,4]
431	Aluminum/Acrylic	1.9 (0.05)	3.1 (0.08)	41 (45)	19 (338)	5	-65 to 300°F (-54 to 149°C)	Conformable aluminum tape.[3]
433	Aluminum/Silicone	2.0 (0.05)	3.6 (0.09)	40 (43.8)	20 (350)	3.5	-65 to 600°F (-54 to 316°C)	MIL-T-47014.[3]
433L	Aluminum/Silicone	2.0 (0.05)	3.5 (0.09)	38 (42)	20 (350)	3.5	-65 to 600°F (-54 to 316°C)	Lined 433 tape.[3]
438	Aluminum/Acrylic	5.0 (0.13)	7.2 (0.18)	43 (47)	59 (1033)	10	-65 to 300°F (-54 to 149°C)	Thickest aluminum tape.[3]
439	Aluminum/Acrylic	1.9 (0.05)	3.1 (0.08)	41 (45)	18 (315)	3	-65 to 300°F (-54 to 149°C)	Lined version 431 tape.[3]
HVAC & Refrigeration Aluminum Foil Tapes								
3311	Aluminum/Rubber	2.0 (0.05)	3.6 (0.09)	90 (98)	17 (298)	3	-10 to 180°F (-23 to 82°C)	UL 723 listed, lined.
3326	Aluminum/Acrylic	2.3 (0.06)	4.4 (0.11)	70 (77)	25 (438)	4	-20 to 250°F (-29 to 121°C)	UL 181A-P & 181B-FX listed, printed backing, lined.
General Purpose Aluminum Foil Tapes								
1449	Aluminum/Acrylic	1.4 (0.04)	2.6 (0.07)	37 (40)	19 (333)	11	-25 to 250°F (-32 to 121°C)	Thinnest aluminum tape for added conformability.
1450	Aluminum/Rubber	1.9 (0.05)	3.1 (0.08)	114 (125)	19 (333)	6	-40 to 200°F (-40 to 93°C)	High initial tack on low energy surfaces.
FSK (Foil Scrim Kraft) Tape								
3320	Foil/Scrim/Acrylic	6.0 (0.16)	6.1 (0.16)	81 (89)	40 (712)	2	-20 to175°F (-29 to 79°C)	Vapor-retardant for sealing wool insulation, duct liner, sheet metal ducts and more.
Aluminum Foil Reinforced Tapes								
363	Aluminum/Glass Cloth/Silicone	3.4 (0.09)	7.3 (0.19)	67 (73)	135 (2364)	7	-65 to 600°F (-54 to 316°C)	Highest temperature metal tape.[3]
1430	Aluminum/Nonwoven/Acrylic	5.0 (0.13)	5.5 (0.14)	22 (24)	19 (333)	12	-65 to 300°F (-54 to 149°C)	Flexible wrapping tape.
Lead Foil Tapes								
420	Lead/Rubber	4.7 (0.12)	6.8 (0.17)	45 (49)	20 (350)	12	-60 to 225°F (-54 to 106°C)	Lined plating tape.
421	Lead/Rubber	4.0 (0.10)	6.3 (0.16)	31 (34)	15 (263)	14	-60 to 225°F (-54 to 106°C)	Unlined plating tape.

[1] Can be qualified to L-T-80B, SAE-AMS-T-23397 [2] Meets U.L.723,Class L File R 7311 [3] F.A.R.25.853 (a) [4] Meets U.L.746C File E122798

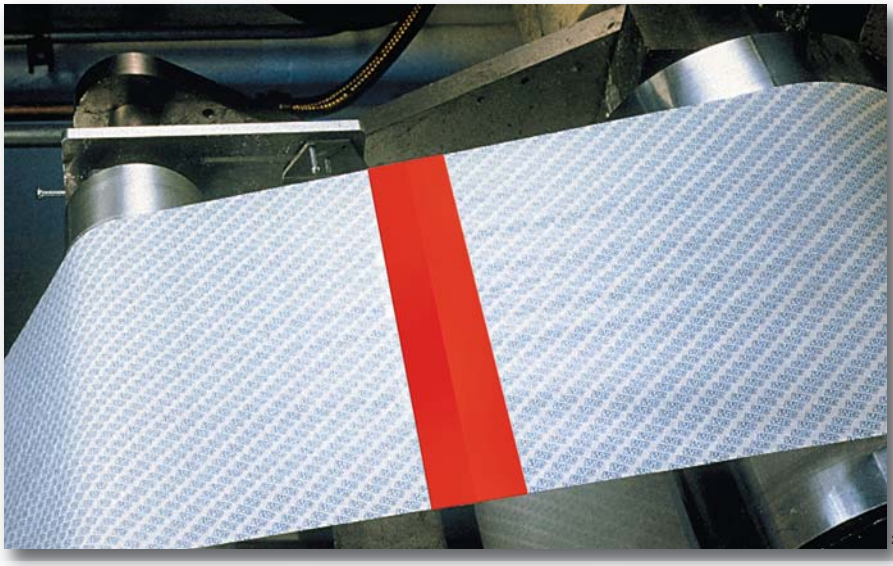
Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Polyester Tapes

Thin caliper with long-term high dimensional strength

With a choice of thin backing calipers and adhesives, this line of tapes meets demanding applications for Graphic Arts, Photography, Metal Finishing, and Electronics. Applications range from splicing silicone-treated paper to low profile decorative trim.

- Backing calipers from as thin as 0.9 mil up to 5 mils, all with very high dimensional strength
- Tensile strengths ranging from 20 lbs./in. (0.9 mil) to 150 lbs./in. (5 mils) – some of the strongest backings available
- Pressure sensitive acrylic, rubber, silicone, and S/R blend adhesives to meet specific requirements. For example, acrylic with transparent backing for clarity and long-term holding; silicone for high temperatures and clean removal; rubber for plating chemical resistance


272


273


274


275

For marking splice location, 3M™ Polyester Tape 850 is available in red, black, white, silver, and gold. Transparent is also available to blend with the web stock. Pressure sensitive acrylic adhesive grabs on contact and holds butt splices securely. High tensile strength backing resists web handling stresses.

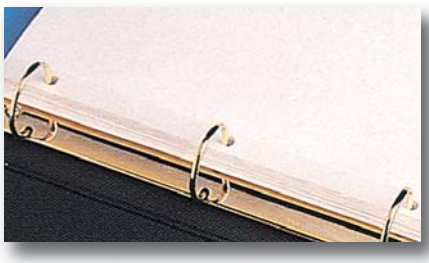

278

For butt splices on many low surface energy materials such as polyethylene. 3M™ Super Bond Film Tape 396 provides the thin caliper, and tensile strength of polyester and high immediate adhesion and holding strength of rubber adhesive.


276


277

For powder coat paint masking, 3M™ Polyester Tape series 8900 provides popular choices with clean removing high temperature silicone adhesives and different backing thicknesses of tough non-slivering polyester.


279

With thin caliper and tear resistance, 3M™ Polyester Tape provides tough low-profile reinforcement for punch holes in card stock. Acrylic adhesive resists yellowing in long-term use.


280

With thin caliper, high tensile strength polyester backing and the excellent shear strength of silicone adhesive, 3M™ Polyester Tape 8402 works well for butt splicing silicone-treated papers.

Product Information:

Product/ Color	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test Method:		D-3652	D-3652	D-3330	D-3759	D-3759		
General Industrial Tapes								
396/Transparent	Polyester/Rubber	1.4 (0.04)	4.1 (0.10)	170 (190)	43 (753)	140	40 to 200°F (4 to 93°C)	Adhesion to low energy surfaces.
850/Transparent	Polyester/Acrylic	0.9 (0.02)	1.9 (0.05)	30 (33)	25 (440)	120	-60 to 300°F (-50 to 150°C)	Splicing, holding, sealing, highly transparent.[3]
850/White/Red/Blk	Polyester/Acrylic	0.9 (0.02)	1.9 (0.05)	30 (33)	28 (491)	120	-60 to 300°F (-50 to 150°C)	Splicing, holding, decorating, color-coding, sealing.
853/Transparent	Polyester/Acrylic	0.9 (0.02)	1.9 (0.05)	48 (52)	24 (421)	102	-60 to 300°F (-50 to 150°C)	Solvent resistant adhesive.[1, 2, 3]
Protective Tapes								
335/Pink	Polyester Film/Rubber	0.9 (0.02)	1.5 (0.04)	0.4 (.5)	26 (455)	115	-60 to 150°F (-50 to 66°C)	Low tack protective tape.
336/Transparent	Polyester Film/Rubber	0.9 (0.02)	1.5 (0.04)	0.4 (.5)	26 (455)	115	-60 to 150°F (-50 to 66°C)	Low tack protective tape.
Release Surface and Liner Splicing Tapes								
8401/Translucent Cream	Polyester/Silicone with Rubber	1.0 (0.03)	1.9 (0.05)	22 (24)	34 (595)	100	-60 to 300°F (-50 to 150°C)	Splicing many release coated papers.
8402/Green	Polyester/Silicone	0.9 (0.02)	1.8 (0.05)	24 (26)	33 (578)	120	-60 to 425°F (-50 to 218°C)	Adheres well to silicone.
8403/Green	Polyester/Silicone	1.5 (0.04)	2.3 (0.06)	27 (30)	44 (772)	150	-60 to 425°F (-50 to 218°C)	Adheres well to silicone.
8901/Blue	Polyester/Silicone	0.9 (0.02)	2.6 (0.06)	32 (35)	28 (490)	115	-60 to 400°F (-50 to 204°C)	High temperature coating.
8902/Blue	Polyester/Silicone	2.0 (0.05)	3.4 (0.09)	40 (44)	53 (928)	130	-60 to 400°F (-50 to 204°C)	High temperature coating.
8905/Blue	Polyester/Silicone	5.0 (0.13)	6.5 (0.17)	43 (47)	150 (2627)	130	-60 to 400°F (-50 to 204°C)	High temperature coating.
8911/Transparent	Polyester/Silicone	1.0 (0.03)	2.7 (0.07)	30 (33)	30 (525)	100	-60 to 400°F (-50 to 204°C)	High temperature label protection.
8951/Blue	Polyester/Silicone	1.0 (0.03)	2.7 (0.07)	30 (33)	30 (525)	100	-60 to 425°F (-50 to 218°C)	High temperature applications.
8952/8952L/Blue	Polyester/Silicone	2.0 (0.05)	3.5 (0.09)	40 (44)	55 (963)	110	-60 to 425°F (-50 to 218°C)	High temperature applications.
8992/8992L/Green	Polyester/Silicone	2.0 (0.05)	3.3 (0.08)	33 (36)	48 (840)	83	-60 to 400°F (-50 to 204°C)	Powder coat masking, economical high temperature applications.
Photo Film Splicing Tapes								
8421/White	Polyester/Rubber	1.4 (0.04)	2.5 (0.06)	50 (55)	43 (753)	140	-60 to 300°F (-50 to 150°C)	Photo film splicing.
8422/Black	Polyester/Rubber	1.4 (0.04)	2.5 (0.06)	50 (55)	43 (753)	140	-60 to 300°F (-50 to 150°C)	Photo film splicing.
8429/Yellow	Polyester/Rubber	2.0 (0.05)	3.2 (0.08)	69 (76)	54 (945)	130	-60 to 300°F (-50 to 150°C)	Photo film splicing.
Reflective Tapes								
630/Silver	Metallic Polyester/ Rubber	1.0 (0.03)	3.7 (0.09)	145 (160)	29 (508)	120	40 to 200°F (4 to 93°C)	High tack splicing.
850/Silver/Gold	Metallic Polyester/ Acrylic	0.9 (0.02)	1.9 (0.05)	42 (46)	28 (491)	120	-60 to 300°F (50 to 150°C)	Splicing, holding, sealing, decorating, color-coding.
8437/Silver	Metallic Polyester/ Acrylic	0.9 (0.02)	2.0 (0.05)	40 (44)	20 (350)	70	40 to 200°F (4 to 93°C)	Low emissivity.

[1]L-T-100B [2]A-A-59298 [3]F.A.R. 25.853 (a) Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Repulpable Splicing Tapes

Fully repulpable for paper mills, converters, newspapers, and web printers

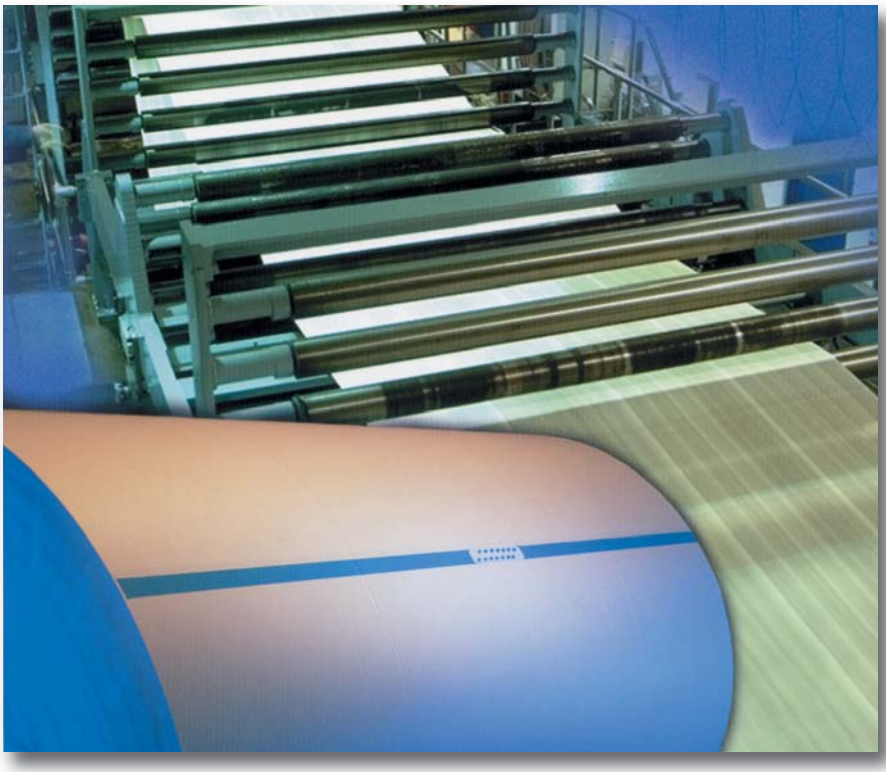
From core starting to roll closing/tabbing and all the splices in-between, this totally repulpable line offers choices for the dependability you need to keep production at full speed. Backings and adhesives are engineered for optimum strength on every type of splice: flying, overlap, butt, and general purpose.

Temporary Tapes

- Good shear strength, high tack, and reliable heat resistance

Permanent Tapes

- High shear strength to stay with paper through sheeting, printing, slitting, and perforating



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3M™ Repulpable Splicing System R9993 eliminates the time and work of "V" and "W" patterns with a straight across flying splice. Advanced coating provides a smooth and consistent opening force. Strong, ultra-thin profile reduces bounce and potential blanket damage at running speeds.

284

High tack 3M™ Temporary Single Coated Repulpable Tapes are available in white, blue, and kraft for dependable core starting, roll closing, and butt splicing.

282

For easy, precise application, 3M™ Repulpable Butt Splicing Tape 9114 is initially repositionable then bonds with paper-delaminating strength.

283

For finished mill overlap splicing, 3M™ Repulpable Permanent Tape provides high shear strength without adhesive oozing or bleed through.

285

One simple splice with 3M™ Repulpable Tape R9993 replaces complex patterns.

286

3M™ Repulpable Double Coated Paster Tape 913 has been an industry standard for flying splices by providing high initial wet grab and excellent shear strength.

Product Information:

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 lightweight 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)*	Aluminized 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.
Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Slick Surface Tapes

Low coefficients of friction with choice of other characteristics

3M™ Slick Surface Tapes meet many application requirements for Printing, Aerospace, Automotive, and MRO (Maintenance and Repair).

3M™ PTFE Tapes

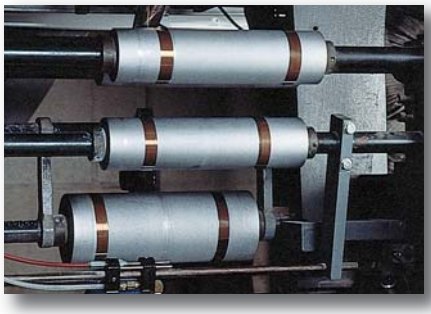
- Self-lubricating with low coefficient of friction to help improve web processing
- Resists up to 400°F (204°C) for long performance on heat sealing machines
- Anti-stick for easy cleanup of hot plastic
- Chemical-resistant barrier
- Silicone-free adhesive available

3M™ UHMW-PE Tapes

- Abrasion resistant to protect chutes, guide rails, and containers from wear
- Low coefficient of friction for "slip plane" effect between surfaces to reduce noise
- Anti-stick for ready release of many inks and adhesives

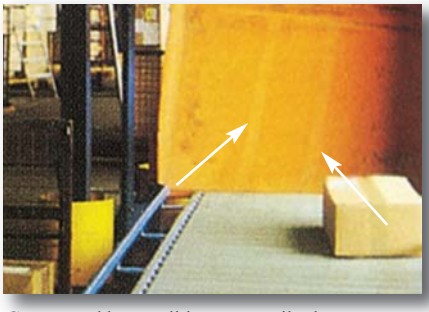
287

For automotive noise reduction, 3M™ UHMW-PE Tape 5425 provides a "slip plane" effect between incompatible surfaces to help reduce squeaks and rattles.



288

Conformable, self-lubricating 3M™ PTFE Tape 5480 helps the movement of web materials in many types of roller wrapping applications.



289

Corrugated boxes slide more easily down a chute lined with abrasion-resistant 3M™ UHMW-PE Tapes.

290

In shrink wrapping operation, 3M™ PTFE Glass Cloth Tape 5451 helps protect the bar underneath where the hot wire seals the plastic film.

Product Information:

Product/ Color	Tape Structure (Backing/ Adhesive)	Backing Thickness mils(mm)	Total Thickness mils(mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in.width (N/100 mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test Method:		D-3652	D-3652	D-3330	D-3759	D-3759		
PTFE Tapes (Polytetrafluoroethylene)								
Glass Cloth								
5151/Lt.Brown	PTFE GC/Silicone	3.0 (0.08)	4.5 (0.11)	30 (33)	100 (1760)	5	-100 to 400°F (-73 to 204°C)	General purpose.
5153/Lt.Brown	PTFE GC/Silicone	5.3 (0.13)	6.8 (0.17)	35 (38)	150 (2600)	5	-100 to 400°F (-73 to 204°C)	General purpose.
5451/Brown	PTFE GC/Silicone	3.2 (0.08)	5.6 (0.14)	28 (30.6)	100 (1760)	5	-100 to 400°F (-73 to 204°C)	Heat seal tape.
5453/Brown	PTFE GC/Silicone	6.0 (0.15)	8.2 (0.21)	55 (56)	175 (3065)	5	-100 to 400°F (-73 to 204°C)	Heat seal tape.
Skived Film								
5180/Gray	PTFE/Silicone	2.0 (0.05)	3.5 (0.09)	25 (28)	30 (525)	100	-65 to 400°F (-54 to 204°C)	General purpose.
5181/Gray	PTFE/Silicone	5.0 (0.13)	6.5 (0.17)	35 (39)	75 (1300)	100	-65 to 400°F (-54 to 204°C)	General purpose.
5480/Gray	PTFE/Silicone	2.0 (0.05)	3.7 (0.09)	20 (22)	27 (473)	140	-65 to 400°F (-54 to 204°C)	Roller wrapping tape.
5481/Gray	PTFE/Silicone	5.0 (0.13)	6.8 (0.17)	32 (35)	49 (858)	335	-65 to 400°F (-54 to 204°C)	Heavy-duty roller wrapping tape.
Extruded Film								
5490/Gray	PTFE/Silicone	2.0 (0.05)	3.7 (0.09)	27 (29)	22 (385)	150	-65 to 400°F (-54 to 204°C)	Lay-flat backing.
5491/Gray	PTFE/Silicone	5.0 (0.13)	6.7 (0.17)	35 (38)	40 (700)	200	-65 to 400°F (-54 to 204°C)	Lay-flat backing.
5498/Brown	PTFE/Rubber	2.0 (0.05)	4.0 (0.10)	48 (53)	19 (332)	105	40 to 300°F (4 to 149°C)	Silicone-free adhesive.
UHMW-PE Tapes (Ultra High Molecular Weight — Polyethylene)								
Film								
5421/Transparent	UHMW-PE/Rubber	5.0 (0.13)	6.7 (0.17)	26 (28)	30 (526)	275	-30 to 225°F (-34 to 107°C)	General purpose tape.
5423/Translucent	UHMW-PE/Rubber	10.0 (0.25)	11.7 (0.30)	26 (28)	55 (963)	300	-30 to 225°F (-34 to 107°C)	Excellent abrasion resistance.
5425/Transparent	UHMW-PE/Acrylic	3.0 (0.08)	4.5 (0.11)	30 (33)	45 (788)	100	-30 to 225°F (-34 to 107°C)	Solvent resistant adhesive.
5430/Transparent	UHMW-PE/Acrylic	5.0 (0.13)	7.0 (0.18)	75 (82)	40 (696)	175	-30 to 225°F (-34 to 107°C)	High tack adhesive.
9324/Black	UHMW-PE/Acrylic	5.0 (0.13)	6.5 (0.17)	75 (82)	40 (696)	175	-30 to 225°F (-34 to 107°C)	Black version 5430 tape.
9325/Transparent	UHMW-PE/Acrylic	3.0 (0.08)	5.0 (0.13)	50 (55)	40 (696)	175	-30 to 225°F (-34 to 107°C)	Thin version 5430 tape.

Note: All UHMW-PE tapes come on a paper liner. Note:This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Sound Damping Foils

Reduce noise and vibration in many applications

With pressure sensitive viscoelastic acrylic polymer on dead soft aluminum foil, 3M™ Sound Damping Foils quiet noise and reduce vibration in many areas for Aerospace, Automotive, Appliances, Construction, and MRO (Maintenance and Repair).

- Reduce structure-borne noise in metal and composite panels and support structures
- Optimized acrylic converts vibrational energy to negligible heat that readily dissipates
- Reduce vibrational fatigue to decrease wear and tear on parts and lower the risk of part loosening and displacement
- Effective damping with as little as 10% surface coverage
- Pressure sensitive for easy self-fixturing application
- Long aging performance
- Good performance over a wide temperature range
- Linered construction provides ability to die-cut product


291

Applied with a 3M™ PA-1 Wiper to the inside of a car door, 3M™ Damping Foil 2552 effectively damps noise and vibration with as little as 10% surface coverage. Optimized acrylic on a dead soft aluminum constraining layer converts vibrational energy to negligible heat that readily dissipates.


292

3M™ Damping Foil 435 between the ribs and stringers of an aircraft fuselage helps reduce vibrational fatigue and noise inside the passenger cabin.


293

3M™ Damping Foil 2552 on the inside of a washing machine reduces structure-borne noise and reduces vibrational fatigue to decrease the risk of part loosening and displacement.

Product Information:

Product/ Color	Tape Structure (Backing/Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test	Method:	D-3652	D-3652	D-3330	D-3759	D-3759		
Damping Foils								
434/Silver	Aluminum/VEP[1]	5.5 (0.14)	7.5 (0.19)	65 (72)	53 (928)	12	-76 to 68°F (-60 to 20°C)[2]	Low temperature vibration damping.[3]
435/Silver	Aluminum/VEP[1]	8.0 (0.20)	13.5 (0.34)	65 (72)	84 (1470)	12	-76 to 68°F (-60 to 20°C)[2]	Low temperature vibration damping.[3]
436/Silver	Aluminum/VEP[1]	12.0 (0.31)	17.5 (0.45)	65 (72)	126 (2205)	12	-76 to 68°F (-60 to 20°C)[2]	Low temperature vibration damping.[3]
2552/Silver	Aluminum/VEP[1]	10.0 (0.25)	15 (0.38)	65 (72)	80 (1400)	15	-25 to 175°F (-32 to 80°C)[2]	General purpose vibration damping.[3]
4014/Silver	Aluminum-Urethane/Acrylic	3.0 (0.076)	250 (6.35)	N/A	N/A	N/A	-94 to 86°F (-70 to 30°C)[2]	Foil/foam sheet laminate.[3]

[1] Viscoelastic polymer [2] Optimum damping temperature [3] The specimen passed the requirements of FAR 25.853 (a)(1)(ii) per AMDT.25-83 tested in composite on aluminum backer.
Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.

3M™ Vinyl and Polyethylene Tapes

Mark, identify, color-code, seal seams, and more

These rugged tapes adhere aggressively and remove cleanly from most surfaces for a wide variety of applications in Automotive, MRO (Maintenance and Repair), Construction, Marine, Commercial Vehicle, and other industries.

Applications include marking hazards and aisles, color-code piping, fine line paint masking, decorative trim, high visibility splicing, and more.

- "Color throughout" construction resists scrapes, wear, weathering, and chemicals
- Wide variety of colors plus transparent
- Flexible backing with aggressive adhesive bonds, conforms, and seals even with irregular surfaces
- Removes cleanly without leaving adhesive behind to clean up
- Stretches to mold to contours

294

3M™ Vinyl Tapes clearly mark lanes, corridors and hazardous or no-go areas in factories, warehouses, and hospitals. Durable vinyl backing resists abrasion, scuffing, moisture, weathering, acids, and alkaline chemicals for long service life.

297

Red 3M™ Vinyl Tape immediately identifies fire protection equipment and apparatus, including fire extinguishers, alarm boxes, and blanket boxes.

295

For color-coding pipes with 3M™ Vinyl Tapes, select from either nine vivid colors or transparent to let underlying color show through. Backing is colored throughout to help maintain ready visibility.

296

For fine line paint masking, 3M™ Vinyl Tape 471 provides sharp paint lines and the clean removal of a firm rubber adhesive.

298

To highlight low hanging objects, protruding equipment, or steps, 3M™ Vinyl Tape 5702 combines yellow and black for a striped combination that calls for attention.

299

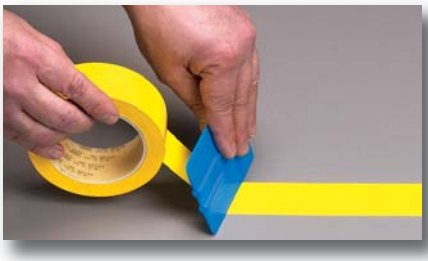
Orange 3M™ Vinyl Tape identifies dangerous machine parts that may cause injury when enclosure doors are open or guards removed.

300

3M™ Polyethylene Tape 483 (Black) provides conformability, UV resistance, and clean removal for sealing end caps on metal pipes stored outdoors at a nuclear power facility.

301

3M™ Vinyl Tape 471 conforms to seal riveted seams. The flexible backing shapes itself to the bumps and edges, and the rubber adhesive holds securely to the metal.



302

With only the pressure of a 3M™ PA-1 Wiper, 3M™ Vinyl Tapes stick on contact to just about any surface for fast application with no dripping, drying, or cleanup.

Product Information:

Product/ Color	Tape Structure (Backing/ Adhesive)	Backing Thickness mils (mm)	Total Thickness mils (mm)	Adhesion to Steel oz./in. (N/100 mm)	Tensile Strength lbs./in. (N/100 mm)	Elongation at Break %	Temperature Range °F (°C)	Comments
ASTM Test Method: D-3652		**D-3652**	**D-3330**	**D-3759**	**D-3759**			
Premium Performance Vinyl Tapes								
471/Various	Vinyl/Rubber	4.1 (0.10)	5.2 (0.13)	23 (25)	16 (280)	130	40 to 170°F (4 to 77°C)	Conformable and clean removal. Black, Blue, Brown, Green, Orange, Purple, Red, Transparent, White, Yellow.
471+/Indigo	Vinyl/Rubber	4.1 (0.10)	5.3 (0.13)	35 (38)	14 (243)	191	Up to 250°F (121°C)	Superior conformability, sharp paint line, clean removal.
4712/Various	Vinyl/Rubber	4.1 (0.10)	5.2 (0.13)	34 (37)	16 (280)	190	40 to 170°F (4 to 77°C)	Linered version of 471. 42# premium paper liner.
472/Black	Vinyl/Rubber	9.0 (0.23)	10.4 (0.26)	23 (25)	32 (560)	270	Up to 225°F (107°C)	Abrasion resistant. High temperature resistant.
477/ Transparent	Vinyl/Rubber	6.0 (0.15)	7.2 (0.18)	24 (26)	24 (420)	230	40 to 170°F (4 to 77°C)	Abrasion resistant.
4731/Various	Vinyl/Rubber	6.0 (0.15)	7.0 (0.18)	20 (22)	18 (315)	245	40 to 170°F (4 to 77°C)	Electroplating.
General Purpose Vinyl Tapes								
764/Various	Vinyl/Rubber	4.0 (0.10)	5.0 (0.125)	18 (21)	13 (228)	180	60 to 85°F (15 to 27°C)	Non-critical applications. Black, Blue, Brown, Gray, Green, Orange, Purple, Red, Transparent, White, Yellow.
Hazard Identification Tapes — Premium Performance Permanent								
5700/Black and White Stripes	Vinyl/Rubber	4.2 (0.11)	5.5 (0.14)	19 (21)	15 (260)	170	40 to 170°F (4 to 77°C)	Adhesive side printing. Critical applications.
5702/Black and Yellow Stripes	Vinyl/Rubber	4.2 (0.11)	5.4 (0.14)	19 (21)	15 (260)	170	40 to 170°F (4 to 77°C)	Adhesive side printing. Critical applications.
Hazard Identification Tapes — General Performance Temporary								
766/Black and Yellow Stripes	Vinyl/Rubber	4.0 (0.10)	5.0 (0.125)	18 (21)	13 (228)	180	60 to 85°F (15 to 27°C)	Non-critical applications.
767/Red and White Stripes	Vinyl/Rubber	4.0 (0.10)	5.0 (0.125)	18 (21)	13 (228)	180	60 to 85°F (15 to 27°C)	Non-critical applications.
Electroplating and Anodizing								
470/Tan	Vinyl/Rubber	6.3 (0.16)	7.1 (0.18)	26 (28)	20 (350)	180	Up to 170°F (77°C)	Chemical resistance.[1]
484/Tan	Vinyl/Rubber	5.7 (0.14)	7.2 (0.18)	20 (22)	20 (350)	220	Up to 170°F (77°C)	Lower adhesion than 470 Tape.
Polyethylene Tapes								
480/Transparent	Polyethylene/ Acrylic	3.8 (0.10)	5.1 (0.13)	22 (24)	10 (180)	277	20 to 170°F (-7 to 77°C)	Acrylic adhesive.
481/Black	Polyethylene/ Rubber	7.7 (0.20)	9.8 (0.25)	32 (35)	15 (260)	510	20 to 170°F (-7 to 77°C)	Preservation sealing tape.[2]
4811/White	Polyethylene/ Rubber	7.5 (0.18)	9.5 (0.24)	30 (36)	15 (260)	490	Up to 170°F (77°C)	Preservation sealing tape.
483/Various	Polyethylene/ Rubber	3.9 (0.10)	5.3 (0.13)	12 (13)	11 (190)	240	Up to 170°F (77°C)	Black, Blue, Green, Red, Transparent, White, Yellow

[1] HH-T-0025, Amend 2 [2] MIL-T-22085 Amend 3, Type IV

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