

3M Plate Mounting Tapes

Selection Guide



Balancing solids and dots for customer satisfaction.



AAA Press International, Inc.

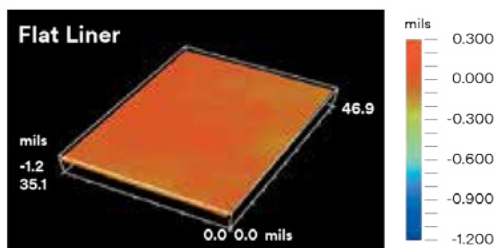
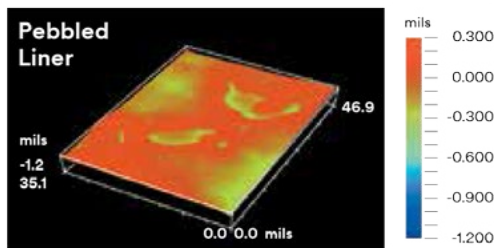
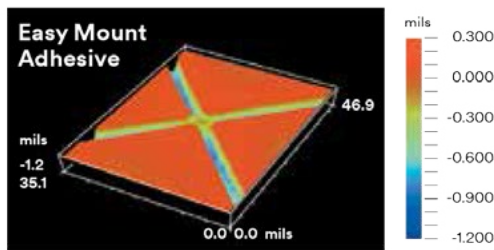
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Wide choice of adhesives, foams and thickness for the results your customers demand.

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

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

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



Microscopic view of adhesive surface measured with interferometer.



E-Series Tapes with Easy Mount Adhesive

On easy with reduced air entrapment. Unlike flat or pebbled liners, E-Series liners are crosshatched. This imprints unique micro-channels into the adhesive that allows air to flow throughout. Air bubbles disappear from between the tape and plate, and between the tape and cylinder or sleeve for virtually bubble-free mounting. Setup is faster with smoother surfaces for cleaner print quality and higher productivity.

Stays on with reduced edge-lifting. Exclusive 3M plate-side adhesive maintains tight contact. Saves the prep time, downtime and labor of sealing plate edges.

Peels off easily to reduce plate damage. Peels off so easily you can virtually eliminate plate back treatment. You're less likely to damage plates, so you save time, labor and money.

Bubble-free print quality. Prevent blemishes in screen and process printing. Help assure proper registration.

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

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

L-Series Tapes with Less Removal Force

3M L-Series Tapes combine the air-release feature of 3M E-Series and H-Series Tapes. They are designed to provide easy and clean removal of printing plates across a wide range of printing applications with excellent resistance to plate lifting.

	Solid Printing	Combination Printing							Process Printing
	400 Series Tapes: Solid	18 Series: Firm	17 Series: Medium Firm	15 Series: Medium	10 Series: Standard	13 Series: Medium Soft	19 Series: Light Medium	12 Series: Light	11 Series: Process
10% Highlight									
40% Midtone									
Reverse									
100% Solid									
	Uniform coverage of solids when halftone dot reproduction is not critical.	When plate contains mostly solids in a combination of solid and halftone images.	When plate contains slightly more solids in a combination of solid and halftone images.	For high speed printing with fine type reverses and expanded color gamut.	When solid and halftone areas are equally important.	For high speed printing of combination work when halftone areas exceed solid.	Improved tone reproduction at high speed when process and halftone images predominate.	Low density maximizes dot reproduction for high speed process and screen printing.	Low density maximizes dot reproduction for high quality process work and screen printing.
	447 447DL 411 411DL 413DL 412 412DL 414DL	E1815 E1815H 1815M E1820 E1820H E1840 E1840H E186, E1860H L1820	E1715 E1715H E1720 E1720H 1720M L1720	E1515 E1515H E1520 E1520H L1520	E1015 E1015H 1015 1015M E1020 E1020H 1020 1020M 1020R E1040 E1040H 1040 E1060 E1060H 1060 L1020	E1315 E1315H E1320 E1320H L1320	E1915 E1915H E1915S E1915HS 1915M E1920 E1920H E1920S E1920HS 1920M 1920S L1920 L1920S	E1215 E1215H E1220 E1220H L1220	E1115 E1115H 1115 E1120 E1120H 1120 L1120

DL: Double Liner
E: Air Release, Standard Plate Side Adhesion
EH: Air Release, High Plate Side Adhesion

K: High Sleeve Side Adhesion for Composite Sleeves
L: Air Release, Less Removal Force and Plate Damage
M: Modified Plate Side Adhesion

R: For Rubber Plates
S: High Sleeve Side Adhesion for Urethane Sleeves

Note: Additional calipers available for specialized needs.

3M™ Flexographic Plate Mounting Systems Selection Guide

	Product Number	Application Thickness Inches (mm)	Manufactured Target Thickness Inches (mm)	Description	Plates	Cylinders	Color	Features
3M™ Solid Printing	400 Series – 3M™ Flexomount™ Solid Plate Mounting Tapes							
	411DL, 411	0.015 (0.38)	0.015 (0.38)	Gray double coated tape with a soft rubber adhesive on each side of a vinyl carrier. Available in single and double liner.	P/R	SS/SL	Gray	Gray vinyl tapes with high adhesion. Helps reduce edge lifting. Helps minimize pin holing on solid work.
	412DL, 412	0.020 (0.51)	0.020 (0.51)		P/R	SS/SL	Gray	
	47DL, 447	0.010 (0.25)	0.010 (0.25)		P/R	SS/SL	Gray	
	413DL	0.015 (0.38)	0.015 (0.38)	Black double coated tape with a firm rubber adhesive on each side of a vinyl carrier. Available only in double liner.	P/R	SS/SL	Black	Black vinyl with lower adhesion. Higher temperature and solvent resistance. Helps minimize pin holing on solids.
414DL	0.020 (0.51)	0.020 (0.51)	P/R		SS/SL	Black		
3M™ Combination Printing Tapes	18 Series – 3M™ Cushion-Mount™ Plus Firm Combination Plate Mounting Tapes							
	E1815H, E1815, 1815M	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Blue	Better solid ink density than the standard combination printing tapes. Clean removal from plate and print cylinder.
	E1820H, E1820, 1820M	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Blue	
	E1840, E1840H	0.040 (1.02)	0.042 (1.07)		P	SS/SL	Blue	
	E1860, E1860H	0.060 (1.52)	0.062 (1.57)		P	SS/SL	Blue	
	L1820	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Blue	
	17 Series – 3M™ Cushion-Mount™ Plus Medium Firm Combination Plate Mounting Tapes							
	E1715H, E1715	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Teal	Quality results when plate contains slightly more solids in a combination of solid and halftone images.
	E1720H, E1720, 1720M	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Teal	
	L1720	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Teal	
	15 Series – 3M™ Cushion-Mount™ Plus Medium Combination Plate Mounting Tapes							
	E1515, E1515H	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Purple	High quality, medium combination print. Adhesive removes cleanly from the print plate and the print cylinder.
	E1520, E1520H	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Purple	
	L1520	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Purple	
	10 Series – 3M™ Cushion-Mount™ Plus Standard Combination Plate Mounting Tapes							
	E1015H, E1015, 1015, 1015M	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	White	Most versatile 3M™ Cushion-Mount™ Plus Tapes. Effectively prints most types of flexographic printing.
	E1015-15H, E1015-15, 1015-15	0.015 (0.38)	0.015 (0.38)		P	SS/SL	White	
	E1020H, E1020, 1020, 1020M	0.020 (0.51)	0.022 (0.56)		P	SS/SL	White	
	1020R	0.020 (0.51)	0.022 (0.56)		P/R	SS/SL	White	
	E1020-20H, E1020-20, 1020-20	0.020 (0.51)	0.020 (0.51)		P	SS/SL	White	
E1040H, E1040, 1040	0.040 (1.02)	0.042 (1.07)	P		SS/SL	White		
E1060H, E1060, 1060	0.060 (1.52)	0.062 (1.57)	P		SS/SL	White		
L1020	0.020 (0.51)	0.022 (0.56)	P		SS/SL	White		
13 Series – 3M™ Cushion-Mount™ Plus Medium Combination Plate Mounting Tape								
E1315H, E1315	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Yellow	High quality, medium-soft combination print. Adhesive removes cleanly from the print late and the print cylinder.	
E1320H, E1320	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Yellow		
L1320	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Yellow		

Note: This technical information and data should be considered representative or typical only and should not be used for specification purposes.
DL – Double Liner; E – Air Release, Standard Plate Side Adhesion; EH – Air Release, High Plate Side Adhesion; K – High Sleeve Side Adhesion for Composite Sleeves; L – Air Release, Less Removal Force and Plate Damage; M – Modified Plate Side Adhesion; P – Photopolymer Plates; R – For Rubber Plates; S – High Adhesion on Cylinder/Sleeve Side; SL – Sleeve; SS – Stainless Steel Cylinder

3M™ Flexographic Plate Mounting Systems Selection Guide (cont.)

Product Number	Application Thickness Inches (mm)	Manufactured Target Thickness Inches (mm)	Description	Plates	Cylinders	Color	Features
19 Series – 3M™ Cushion-Mount™ Plus Soft Combination Plate Mounting Tapes							
E1915, E1915H, 1915M	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Pink	Soft support improves tone reduction when process and halftone images predominate.
E1915HS, E1915S	0.015 (0.38)	0.017 (0.43)		P	SL	Pink	
E1920H, E1920, 1920M	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Pink	
E1920S, 1920S, E1920HS	0.020 (0.51)	0.022 (0.56)		P	SL	Pink	
L1920	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Pink	
L1920S	0.020 (0.51)	0.022 (0.56)		P	SL	Pink	
12 Series – 3M™ Cushion-Mount™ Plus Light Combination Plate Mounting Tapes							
E1215H, E1215	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Orange	High quality, light combination print. Adhesive removes cleanly from the print plate and the print cylinder. Air release on both adhesive surfaces.
E1220H, E1220	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Orange	
L1220	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Orange	
11 Series – 3M™ Cushion-Mount™ Plus Process Plate Mounting Tapes							
E1115H, E1115, 1115	0.015 (0.38)	0.017 (0.43)	Differential acrylate adhesive system on each side of a foam carrier, protected by a release liner on one side.	P	SS/SL	Tan	Better tone reproduction than the standard combination printing tapes. Clean removal from plate and print cylinder.
E1115-15H, E1115-15, 1115-15	0.015 (0.38)	0.015 (0.38)		P	SS/SL	Tan	
E1120H, E1120, 1120	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Tan	
E1120-20H, E1120-20, 1120-20	0.020 (0.51)	0.020 (0.51)		P	SS/SL	Tan	
L1120	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Tan	

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3M™ Thin Tapes

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



Designed specifically for flexographic printing on corrugated board, 3M™ Thin Flexographic Mounting Tape 2205 is a 5-mil double-coated polyester film tape with cross-hatched adhesive. The cross hatching reduces air entrapment, saving time and improving print quality.

Product Number	Tape Thickness Mils (mm)	Description	Compressible Sleeves	Corrugated	Rotary	Make Ready	Features
415	4.0 (0.10)	Double coated tape with a medium-firm acrylic adhesive on each side of a polyester carrier.		■	■		Good adhesion to a wide range of surfaces. Can be used for Cameron Press applications, splice papers, films and foils.
927	2.0 (0.05)	Acrylic adhesive transfer tape.		■		■	Corrugated plate mounting applications where repositionability and removability are not required.
950	5.0 (0.13)	Acrylic adhesive transfer tape.		■			
E2105	5.0 (0.13)	Double coated film tape with differential acrylic adhesive on a polyester film carrier.	■				Specifically designed for mounting flexographic print plates to cushioned/compressible sleeves. Both adhesives are designed to provide high holding power and to cleanly remove from both the plate and the sleeve.
2205	5.0 (0.13)	Double coated film tape with differential acrylic adhesive on a polyester film carrier.		■			Adhesives designed specifically for corrugated flexo mounting. Removes cleanly and easy to reposition.
9500PC	5.6 (0.14)	High performance acrylic adhesive with good chemical resistance.	■		■		Thin tape plate mounting applications requiring higher performance than 442KW Tape.

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

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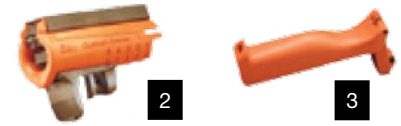
Plate Edge Sealing

3M Hot Melt Bonding Systems

Easy apply 3M Hot Melt Adhesives 3762LM, 3776LM, 3792LM or 3798LM with a 3M Hot Melt Applicator LT to seal plate edges against ink and solvent penetration that can cause edge lifting.



3M™ Hot Melt Applicator	Weight	Output (lb/hr)	Temperature	Adhesive Size (dia. x length)	Accessories (keyed below)
LT	10.0 oz.	2.6	265°F (129°C)	5/8" x 2" TC	1 2 3 4
LT with Quadrack™ Converter	13.8 oz.	2.6	265°F (129°C)	2. 5/8" x 8" Q	1 4



Increase loading capacity and ease of operation with Quadrack™ Converter and Palm Trigger.

Tip No.	Description
9913	2-hole Spreader (1/4" hole span)
9916	3-hole Spreader
9921	.090" Fluted Tip
9500PC	.063" Fluted Tip
9940	.125" Fluted Tip
9725	.072" Mini Extension Tip
9785	.070" Tapered Aluminum Extension



A general purpose tip (9921) is supplied with each 3M™ Hot Melt Applicator. Optional tips are available to increase productivity.



Heavy-Duty Benchstand provides added convenience.

Product Number (Color)	Features	Size	Delivery Time for 1" x 3" Cartridge	Heat Resistance	Peel Strength PIW 72°F (22°C)	Shear Strength PSI 72°F (22°C)	Open Time 1/8" Bead Make Ready
Low Melt Technology: Applied 250–270°F (127–132°C)							
(3762LM* (Lt. Amber)	Economical, fast setting, general purpose	5/8" x 8" Q 5/8" x 2" TC	45 sec.	130°F (54°C)	6	480	25 sec.
3776LM (Tan)	Bonds variety of materials	5/8" x 8" Q	47 sec.	140°F (60°C)	9	600	40 sec.
3792LM* (Clear)	Clear, multi-purpose	5/8" x 8" Q 5/8" x 2" TC	57 sec.	140°F (60°C)	13	350	40 sec.
3798LM* (Clear)	Removable "gummy glue" adhesive	5/8" x 2" TC	N/A	120°F (49°C)	N/A	N/A	30 sec.

*Also available in bulk.

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Plate Edge Sealing *(cont.)*

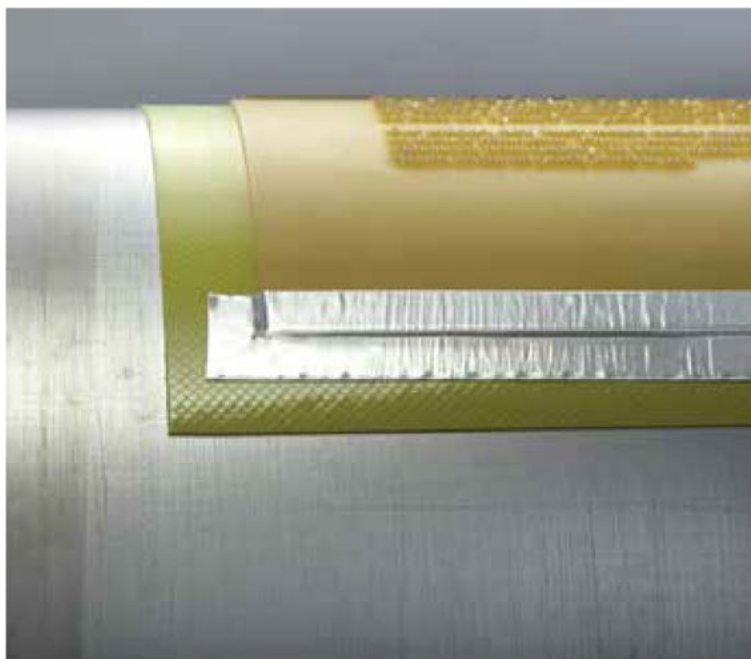
Multiple options with 3M™ Single Coated Tapes

Easy apply 3M Hot Melt Adhesives 3762LM, 3776LM, 3792LM or 3798LM with a 3M Hot Melt Applicator LT to seal plate edges against ink and solvent penetration that can cause edge lifting.

Product Number (Color)	Tape Structure (Backing/Adhesive)	Backing Thickness Mils (mm)	Total Thickness Mils (mm)	Adhesion to Steel oz./in. (N/100mm)	Tensile Strength lbs./in. (N/100mm)	Elongation at Break (%)	Temperature Range	Features
Premium Performance Aluminum Foil Tape								
425* (Silver)	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.
Premium Performance Vinyl Tape								
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.
General Industrial Tapes								
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)	Splicing, holding, sealing, highly transparent.
850 (White, Red, Black)	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, colorcoding, sealing.
850 (Silver)	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, decorating, colorcoding, sealing.

*Can be qualified to L-T-80B, MIL-T-23397B II; Meets U.L., Class L File R 7311; F.A.R.25.853 (a); Meets U.L.746C File E122798

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To seal plate edges against ink and solvent penetration that can weaken mounting tape strength, 3M™ Aluminum Foil Tape 425 (left) and 3M™ Vinyl Tape 471 (right) apply easily, bonding on contact and conforming over the plate edge.

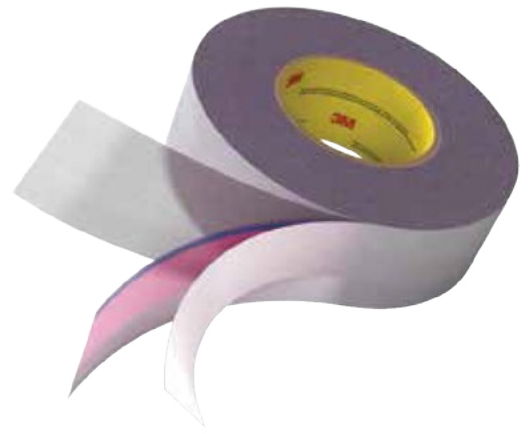
Splicing Tape

3M™ Splittable Flying Splice Tape 8387

Maximize speed. Keep your presses running at higher speeds so you can get the best from your press with consistent results.

Optimize surface adhesion. Splice even the most challenging substrates, such as: polyethylene, biaxially oriented polypropylene, cast polypropylene, polyester and aluminum foil.

Minimize contamination. Save cleanup time and money by reducing tab debris and fiber contamination on your central impression (CI) drum and rollers, as well as eliminating the hazards of using glue.



Product Number	Adhesive	Backing	Liner	Color	Tape Thickness Mils (mm)	Liner Thickness Mils (mm)	Post – Split Tape Thickness Mils (mm)
425* (Silver)	Aluminum/Acrylic	2.8 (0.07)	Easy-release coated paper	Splicing Side: Pink Tabbing Side: Black	7.0 (0.19) without liner	7.0 (0.19) without liner	Splicing: 4.0 (0.10) Tabbing: 3.0 (0.09)

Other Mounting Essentials



3M™ Cylinder Mount Build-Up Tape 1640

For use with any 3M flexographic tape to add 0.040" thickness. Facilitates use of thinner printing plates.



Scotch® Magic Tape 810

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



3M™ Primer 94

For use with any 3M flexographic tape to add 0.040" thickness. Facilitates use of thinner printing plates.



3M™ Hand Roller 903

For virtually air-free mounting, helps air bleed through and out of the adhesive micro-channels in 3M™ Flexographic Plate Mounting Tapes.

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