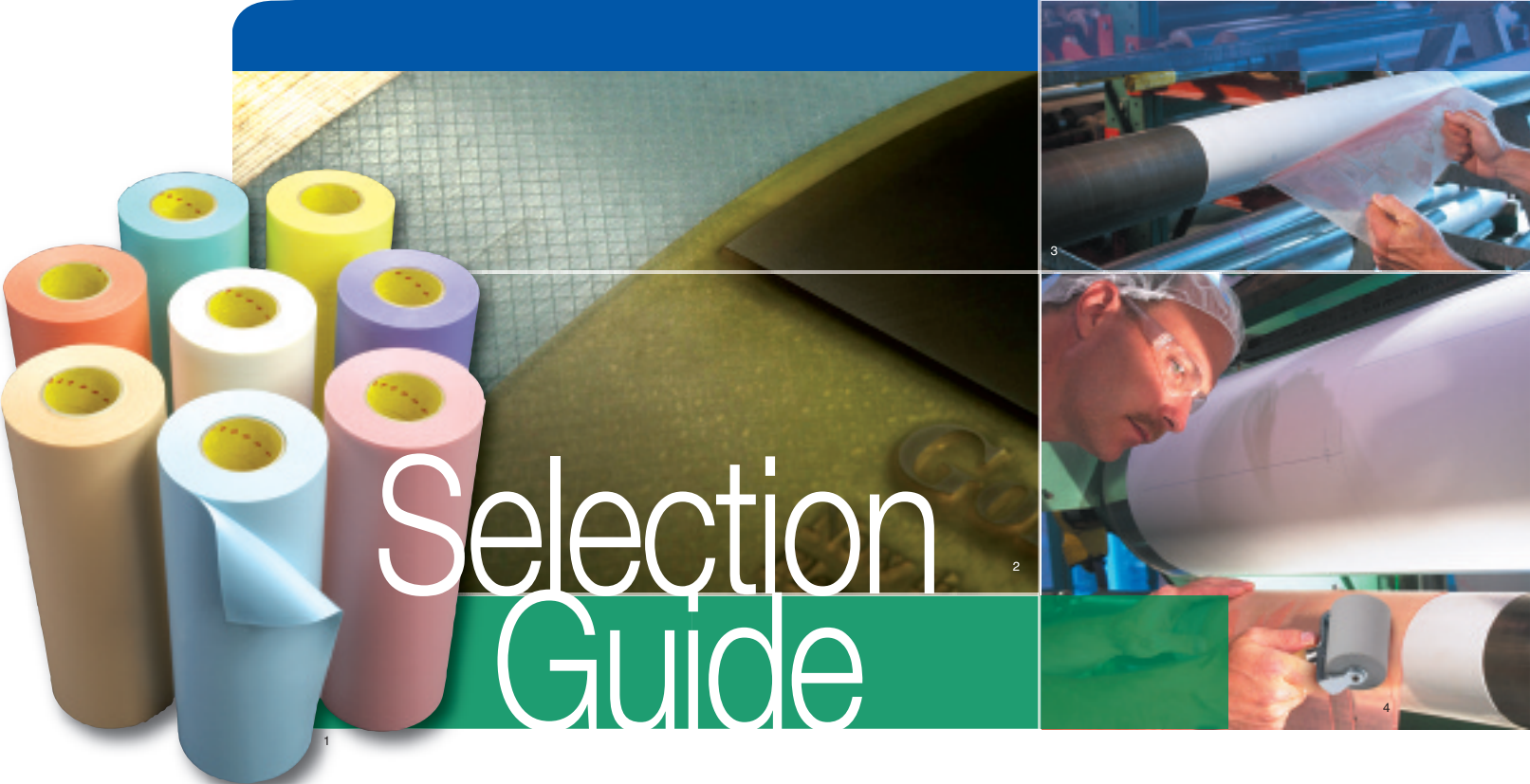


# 3M™ Flexographic Plate Mounting Systems



Balancing solids and dots  
for customer satisfaction



# Wide choice of adhesives, foams, and thickness for

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 thicknesses for the print quality that customers demand and expect. You'll also find choices to meet your handling requirements for:

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



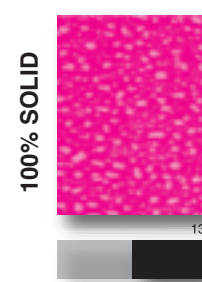
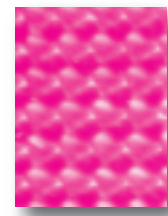
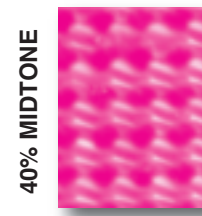
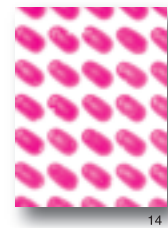
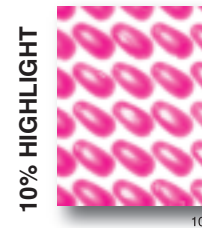
## Solid Printing

**Solid Printing**

**400 Series Tapes: Solid**

## 18 Series: Firm

**18 Series: Firm**



Uniform coverage of solids when halftone dot reproduction is not critical.

When plate contains mostly solids in a combination of solid and halftone images.

447DL

411DL, 413DL

412DL, 414DL

E1815, E1815H, 1815M

E1820, E1820H, 1820M

E1840, E1840H

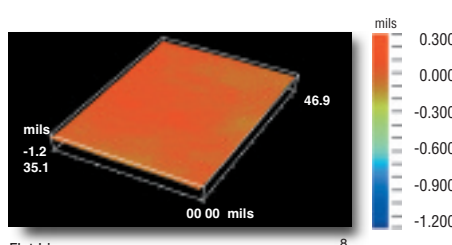
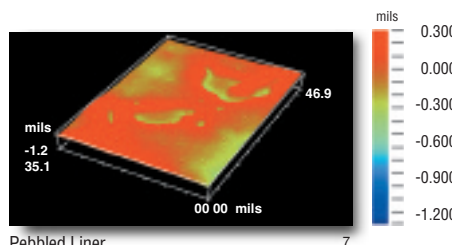
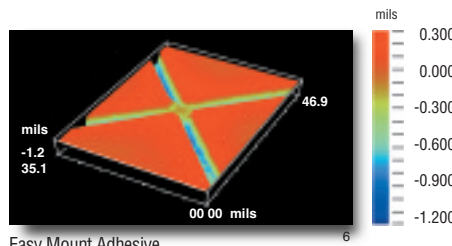
E1860, E1860H

## 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 microchannels into the adhesive that allow air to flow throughout the adhesive. 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.

### Microscopic view of adhesive surface measured with interferometer



### 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".

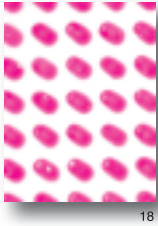


# the results your customers demand

## Combination Printing

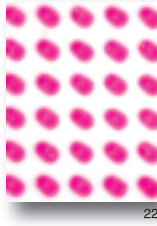
## Process Printing

17 Series:  
Medium Firm



18

15 Series:  
Medium



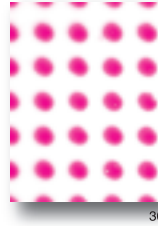
22

10 Series:  
Standard



26

13 Series:  
Medium Soft



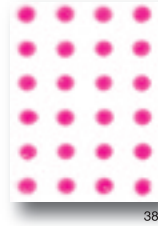
30

19 Series:  
Light Medium



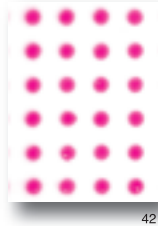
34

12 Series:  
Light

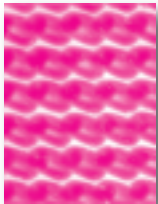


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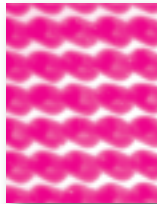
11 Series:  
Process



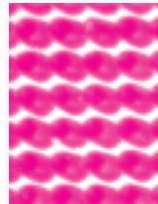
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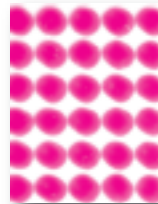
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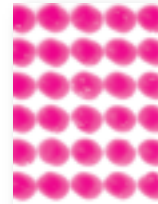
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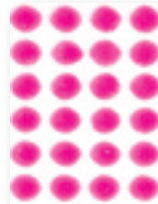
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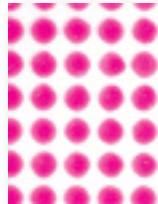
31



35



39



43



20



24



28



32



36



40



44



21



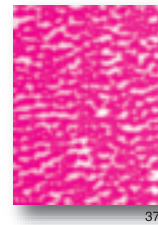
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29



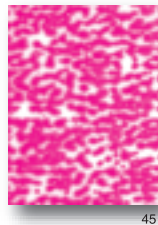
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37



41



45

When plate contains slightly more solids in a combination of solid and halftone images.

E1715, E1715H  
E1720, E1720H,  
1720M

For high speed printing with fine type reverses and expanded color gamut.

E1515, E1515H  
E1520, E1520H

When solid and halftone areas are equally important.

E1015, E1015H, 1015,  
1015M  
E1020, E1020H, 1020,  
1020M, 1020R  
E1040, E1040H, 1040  
E1060, E1060H, 1060

For high speed printing of combination work when halftone areas exceed solid.

E1315, E1315H  
E1320, E1320H

Improved tone reproduction at high speed when process and halftone images predominate.

E1915, E1915H,  
E1915S, E1915HS  
1915M  
E1920, E1920H,  
E1920S, E1920HS,  
1920M, 1920S

Low density maximizes dot reproduction for high speed process and screen printing.

E1215, E1215H  
E1220, E1220H

Low density maximizes dot reproduction for high quality process work and screen printing.

E1115, E1115H,  
1115  
E1120, E1120H,  
1120, 1120K

# 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 Tapes	<b>400 Series 3M™ Flexomount™ Solid Printing Tapes</b>							
	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	
	447DL, 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 - 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	<b>18 Series 3M™ Cushion-Mount™ Plus Firm Combination Printing Tapes</b>							
	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	
	<b>17 Series 3M™ Cushion-Mount™ Plus Medium Firm Combination Printing Tapes</b>							
	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	
	<b>15 Series 3M™ Cushion-Mount™ Plus Medium Combination Printing Tapes</b>							
	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	
	<b>10 Series 3M™ Cushion-Mount™ Plus Standard Combination Printing Tapes</b>							
	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		
<b>13 Series 3M™ Cushion-Mount™ Plus Medium Combination Printing Tapes</b>								
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 plate and the print cylinder.	
E1320H, E1320	0.020 (0.51)	0.022 (0.56)		P	SS/SL	Yellow		
<b>19 Series 3M™ Cushion-Mount™ Plus Soft Combination Printing Tapes</b>								
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		

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

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

# 3M™ Flexographic Plate Mounting Systems Selection Guide (continued)

	Product Number	Application Thickness Inches (mm)	Manufactured Target Thickness Inches (mm)	Description	Plates	Cylinders	Color	Features
3M™ Comb. Tapes (cont.)	<b>12 Series 3M™ Cushion-Mount™ Plus Light Combination Printing Tapes</b>							
	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	
3M™ Process Printing Tapes	<b>11 Series 3M™ Cushion-Mount™ Plus Process Printing Tapes</b>							
	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.
	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	
	1120K	0.020 (0.51)	0.022 (0.56)		P	SL	Tan	

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  
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

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

## 3M™ Thin Tapes

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

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

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

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



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.

# Plate Edge Sealing

## 3M™ Scotch-Weld™ Hot Melt Bonding Systems

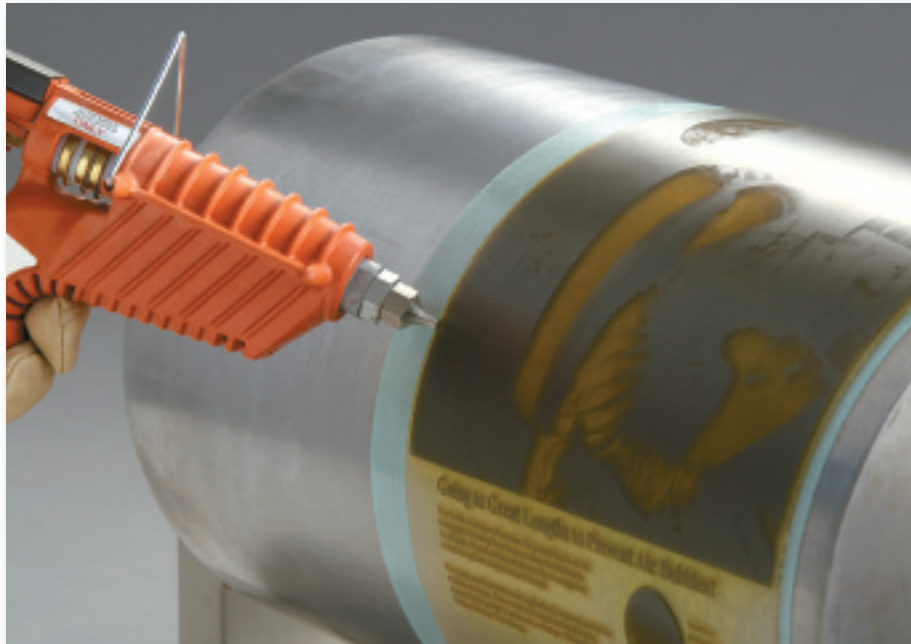
Easily apply 3M™ Scotch-Weld™ Hot Melt Adhesives 3762LM, 3776LM, 3792LM, or 3798LM with a 3M™ Scotch-Weld™ Hot Melt Applicator LT to seal plate edges against ink and solvent penetration that can cause edge lifting.



LT



LT with Quadrack Converter



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



Tip No.	Description
9913	2 Hole Spreader (1/4" hole span)
9916	3 Hole Spreader
9921	.090" Fluted Tip
9922	.063" Fluted Tip
9940	.125" Fluted Tip
9725	Mini Extension Tip .072" Opening
9785	.070" Tapered Aluminum Extension



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

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

**Heavy-Duty Benchstand** for added convenience.

## Product Information

3M™ Scotch-Weld™ Hot Melt Adhesives (Color)	Features Application Ideas	Sizes	Delivery Time (sec) for 1" x 3" Cartridge	Heat Resistance (°F/°C)	Peel Strength PIW <sup>(1)</sup> 72°F (22°C)	Shear Strength PSI <sup>(2)</sup> 72°F (22°C)	Open Time 1/8" Bead (sec) <sup>(3)</sup>
Low Melt Technology: Applied 250°-270°F (127°-132°C)	3762LM* Lt. Amber	5/8" x 8" 5/8" x 2"	45	130/54	6	480	25
	3776LM Tan	5/8" x 8"	47	140/60	9	600	40
	3792LM* Clear	5/8" x 8" 5/8" x 2"	57	140/60	13	350	40
	3798LM Clear	Gummy glue removable adhesive	5/8" x 2"	N/A	120/49	N/A	N/A

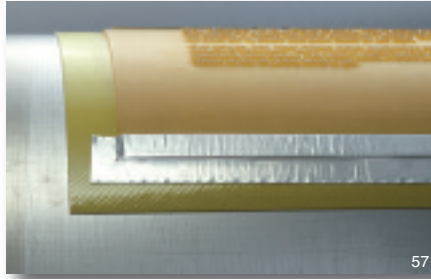
\* Also available in bulk. (1) On canvas (2) On Douglas Fir (3) 1/8" semicircular bead, Douglas Fir to Douglas Fir.

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

## Plate Edge Sealing (continued)

### Multiple options with 3M™ Single Coated Tapes

3M™ Aluminum Foil Tape 425, 3M™ Vinyl Tape 471, or 3M™ Polyester Film Tape 850 are pressure sensitive adhesive tapes that bond on contact to seal plate edges against ink and solvent penetration that can cause edge lifting.



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.

### 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		
<b>Premium Performance Aluminum Foil Tape</b>								
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. <sup>1,2,3,4</sup>
<b>Premium Performance Vinyl Tape</b>								
471/Various Colors	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.
<b>General Industrial Tapes</b>								
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/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.
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, decorating, color-coding, sealing.

<sup>1</sup> Can be qualified to L-T-80B,MIL-T-23397B II <sup>2</sup> Meets U.L., Class L File R 7311 <sup>3</sup> F.A.R.25.853 (a) <sup>4</sup> 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.

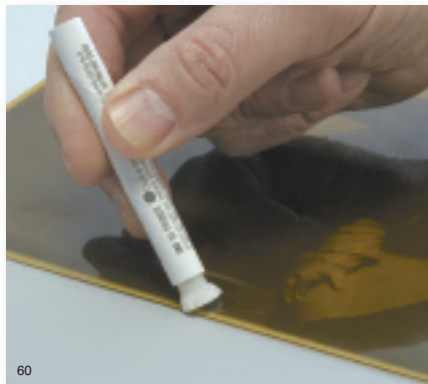
## Other Mounting Essentials



### 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.

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**3M™ Primer 94** – Helps hold the leading and trailing edges of the plate to prevent edge lifting.

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### Scotch® Magic Tape 810

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



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**3M™ Hand Roller 903** – For virtually air-free mounting, helps air bleed through and out of the adhesive microchannels in 3M™ Flexographic Plate Mounting Tapes

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