




Science.  
Applied to Life.™

A photograph showing two male workers in a factory setting. They are standing in front of a large roll of white paper. The worker on the left is wearing a grey t-shirt, blue jeans, and safety glasses. The worker on the right is wearing a grey t-shirt, blue jeans, and work gloves. They are both looking at a blue strip of material on the roll. The background shows industrial machinery and a red structure. A large orange and yellow graphic overlay is in the bottom right corner.

**Productivity and  
performance  
throughout printing  
plants, web and paper  
processing facilities.**

3M Solutions for Web Processing

# Solutions to keep the work flowing and your customers coming back.

When you need to splice webs, reduce plate damage or improve print quality, you can rely on 3M to provide you with the right solutions.

Having the right products makes all the difference. 3M can help you maximize your plant's potential by offering reliable products such as air-release tapes that provide clean and easy removal of printing plates, splicing tapes for improved productivity and efficiencies, and web handling systems that can increase or decrease the level of traction.

Plus, a line of products that can help keep the rest of your plant running smoothly, like lane marking tapes to show the way, case sealers that ease bottleneck and high to low temperature threadlockers.



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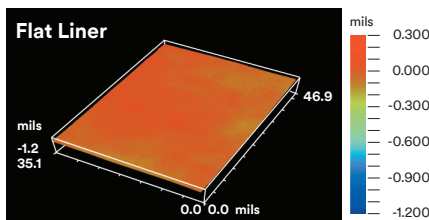
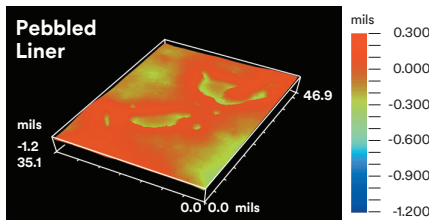
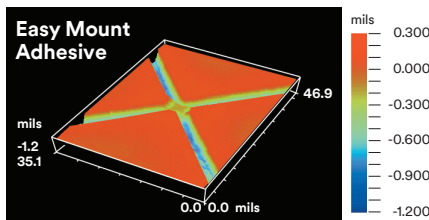
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# Wide choice of adhesives, foams and thickness for the results your customers demand.

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.



## 3M Air Release Flexographic Plate Mounting Tapes

**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.

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

## E-Series Tapes with easy mount adhesive

Introduced the world to the features of 3M air release tapes. 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.

## L-Series Tapes with less removal force

3M L-Series combine the air-release feature with a unique adhesive technology. 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.

## EH-Series Tapes to hold the edge on small diameter cylinders

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

|               | Solid Printing   | Combination Printing   |   |   |   |   |  |  | Process Printing  |
|---------------|--|--|---|---|---|---|--|--|---|
|               | 400-Series<br>Tapes: Solid   | 18-Series:<br>Firm   | 17-Series:<br>Medium Firm   | 15-Series:<br>Medium  | 10-Series:<br>Standard  | 13-Series:<br>Medium Soft   | 19-Series:<br>Light Medium   | 12-Series:<br>Light  | 11-Series:<br>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. |
|               | 411<br>411DL<br>412<br>412DL<br>447<br>447DL                               | E1815<br>E1815H<br>L1815<br>E1820<br>E1820H<br>L1820<br>E1840<br>E1840H<br>E1860<br>E1860H | E1715<br>E1715H<br>L1715<br>E1720<br>E1720H<br>L1720<br>E1720<br>E1720H<br>L1720        | E1515<br>E1515H<br>L1515<br>E1520<br>E1520H<br>L1520                      | E1015<br>E1015H<br>1015<br>L1015<br>E1020<br>E1020H<br>1020<br>1020R<br>L1020<br>E1040<br>E1040H<br>1040<br>E1060<br>E1060H<br>1060 | E1315<br>E1315H<br>L1315<br>E1320<br>E1320H<br>L1320                          | E1915<br>E1915H<br>E1915S<br>E1915HS<br>L1915<br>L1915S<br>E1920<br>E1920H<br>E1920S<br>E1920HS<br>L1920<br>L1920S | E1215<br>E1215H<br>L1215<br>E1220<br>E1220H<br>L1220                               | E1115<br>E1115H<br>1115<br>L1115<br>E1120<br>E1120H<br>1120<br>L1120                      |

DL – Double Liner

E – Air Release, Standard Plate Side Adhesion

EH – Air Release, High Plate Side Adhesion

L – Air Release, Less Removal Force and Plate Damage

M – Modified Plate Side Adhesion

R – For Rubber Plates

S – High Adhesion on Cylinder/Sleeve Side

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 Tapes       | <b>400-Series — 3M™ Flexomount™ Solid Plate Mounting Tapes</b>                          |                                   |   |  |        |           |   |   |
|                                | 411DL, 411  | 0.015 (0.38)                      | 0.015 (0.38)  |  | P/R    | SS/SL     | Gray  |   |
|                                | 412DL, 412  | 0.020 (0.51)                      | 0.020 (0.51)  | 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.            |
|                                | 447DL, 447  | 0.010 (0.25)                      | 0.010 (0.25)  |  | P/R    | SS/SL     | Gray  |   |
| 3M™ Combination Printing Tapes | <b>18-Series — 3M™ Cushion-Mount™ Plus Firm Combination Plate Mounting Tapes</b>        |                                   |   |  |        |           |   |   |
|                                | E1815H, E1815, L1815  | 0.015 (0.38)                      | 0.017 (0.43)  |  | P      | SS/SL     | Blue  |   |
|                                | E1820H, E1820, L1820  | 0.020 (0.51)                      | 0.022 (0.56)  | 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. |
|                                | 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 Plate Mounting Tapes</b> |                                   |   |  |        |           |   |   |
|                                | E1715H, E1715, L1715  | 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, L1720  | 0.020 (0.51)                      | 0.022 (0.56)  |  | P      | SS/SL     | Teal  |   |
|                                | <b>15-Series — 3M™ Cushion-Mount™ Plus Medium Combination Plate Mounting Tapes</b>      |                                   |   |  |        |           |   |   |
|                                | E1515, E1515H, L1515  | 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, L1520  | 0.020 (0.51)                      | 0.022 (0.56)  |  | P      | SS/SL     | Purple  |   |
|                                | <b>10-Series — 3M™ Cushion-Mount™ Plus Standard Combination Plate Mounting Tapes</b>    |                                   |   |  |        |           |   |   |
|                                | E1015H, E1015, L1015  | 0.015 (0.38)                      | 0.017 (0.43)  |  | P      | SS/SL     | White   |   |
| E1015-15H, E1015-15, L1015-15  | 0.015 (0.38)  | 0.015 (0.38)                      |   | P  | SS/SL  | White     |   |   |
| E1020H, E1020, L1020           | 0.020 (0.51)  | 0.022 (0.56)                      | 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. |   |
| 1020R                          | 0.020 (0.51)  | 0.022 (0.56)                      |   | P/R  | SS/SL  | White     |   |   |
| E1020-20H, E1020-20, L1020-20  | 0.020 (0.51)  | 0.020 (0.51)                      |   | P  | SS/SL  | White     |   |   |
| E1040H, E1040, L1040           | 0.040 (1.02)  | 0.042 (1.07)                      |   | P  | SS/SL  | White     |   |   |
| E1060H, E1060, L1060           | 0.060 (1.52)  | 0.062 (1.57)                      |   | P  | SS/SL  | White     |   |   |

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

**Note:** The 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 (cont.)

|   | Product Number   | Application Thickness Inches (mm) | Manufactured Target Thickness Inches (mm) | Description   | Plates | Cylinders | Color  | Features  |  |
|---|--|-----------------------------------|---|---|--------|-----------|--------|---|--|
| <b>13-Series — 3M™ Cushion-Mount™ Plus Medium Soft Combination Plate Mounting Tapes</b> |  |                                   |   |   |        |           |        |   |  |
| 3M™ Combination Printing Tapes (cont.)  | E1315H, E1315, L1315   | 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, L1320   | 0.020 (0.51)                      | 0.022 (0.56)                              |   | P      | SS/SL     | Yellow |   |  |
|   | <b>19-Series — 3M™ Cushion-Mount™ Plus Light Medium Combination Plate Mounting Tapes</b> |                                   |   |   |        |           |        |   |  |
|   | E1915, E1915H, L1915   | 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, L1915S  | 0.015 (0.38)                      | 0.017 (0.43)                              |   | P      | SL        | Pink   |   |  |
|   | E1920H, E1920, L1920   | 0.020 (0.51)                      | 0.022 (0.56)                              |   | P      | SS/SL     | Pink   |   |  |
|   | E1920S, E1920HS, L1920S  | 0.020 (0.51)                      | 0.022 (0.56)                              |   | P      | SL        | Pink   |   |  |
|   | <b>12-Series — 3M™ Cushion-Mount™ Plus Light Combination Plate Mounting Tapes</b>        |                                   |   |   |        |           |        |   |  |
|   | E1215H, E1215, L1215   | 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, L1220   | 0.020 (0.51)                      | 0.022 (0.56)                              |   | P      | SS/SL     | Orange |   |  |
| <b>11-Series — 3M™ Cushion-Mount™ Plus Process Plate Mounting Tapes</b>                 |  |                                   |   |   |        |           |        |   |  |
| 3M™ Process Printing Tapes  | E1115H, E1115, 1115, L1115   | 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, L1120   | 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    |   |  |

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 L – Air Release, Less Removal Force and Plate Damage

M – Modified Plate Side Adhesion  
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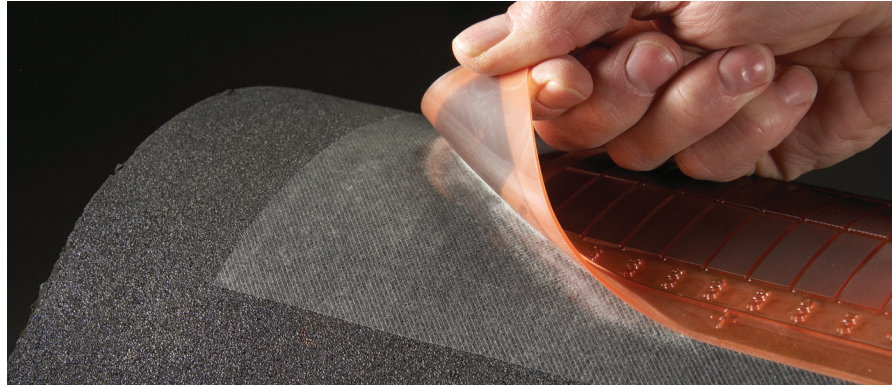


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# Thin Tapes

## Thin Tapes for Compressible Sleeves

When cushioning is unnecessary, this tape can be mounted on compressible sleeves.



3M™ Thin Flexographic Plate Mounting Tape E2105 is a double coated film tape constructed of a polyester film carrier with differential adhesives specifically designed for mounting flexographic print plates to cushioned/compressible sleeves.

| Product Number | Tape Thickness Mils (mm) | Description   | Compressible Sleeves | Features  |
|----------------|--------------------------|---|----------------------|---|
| 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. |

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

## Thin Tapes for Corrugated

When cushioning is unnecessary, these tapes can mount both rubber and photopolymer plates.



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   | Corrugated | Rotary Letterpress | 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.   | ■          |                    |            |  |
| 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.                 |

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

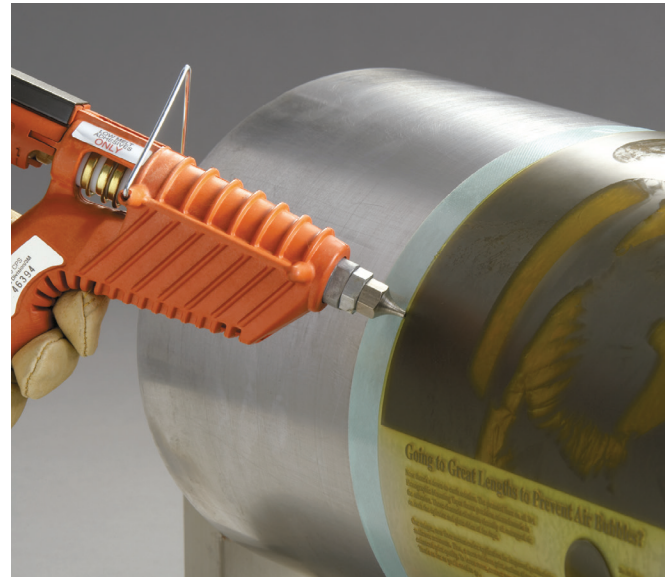
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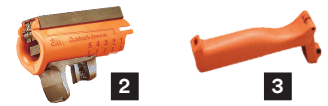
# Plate Edge Sealing

## 3M™ Hot Melt Bonding Systems

Easily 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.

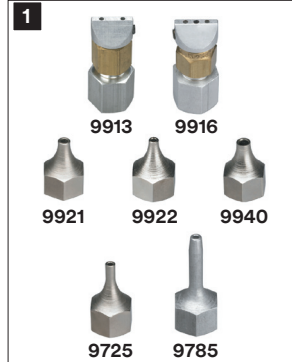


| 3M™ Hot Melt Applicator     | Weight   | Output (lb/hr) | Temperature   | Adhesive Size (dia. x length) | Accessories (keyed below) |
|-----------------------------|----------|----------------|---------------|-------------------------------|---------------------------|
| LT                        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



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                 |
| 9922    | .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.

## 3M™ Hot Melt Adhesives

| 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 |
|---|-----------|---|-----------------------------|-------------------------------------|-----------------|-------------------------------|--------------------------------|---------------------|
| <b>Low Melt Technology: Applied 250–270°F (127–132°C)</b> |           |   |                             |                                     |                 |                               |                                |                     |
| 3762LM*   | Lt. Amber | Economical, fast setting, general purpose | 5/8" x 8" Q<br>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<br>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.             |

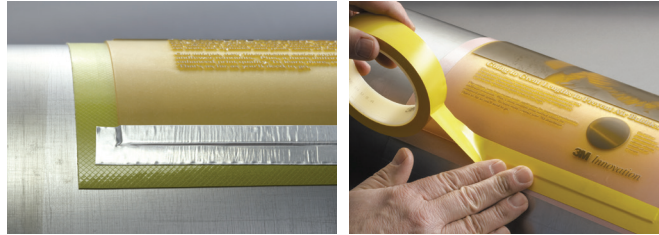
\*Also available in bulk.

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

# Plate Edge Sealing (cont.)

## 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 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   |
|---|-------------------|-----------------------------------|-----------------------------|---------------------------|-------------------------------------|-------------------------------------|-------------------------|-----------------------------|--|
| <b>Premium Performance Aluminum Foil Tape</b> |                   |                                   |                             |                           |                                     |                                     |                         |                             |  |
| 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.  |
| <b>Premium Performance Vinyl Tape</b>         |                   |                                   |                             |                           |                                     |                                     |                         |                             |  |
| 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. |
| <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, 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, color-coding, 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, color-coding, 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.

## 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 tapes.



### 3M™ Adhesion Promoter AP-86A

Helps increase the bond between photopolymer plates and flexographic plate mounting tapes to prevent edge lifting.



### Scotch® Magic™ Tape 810

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



### 3M™ Hand Roller 903

For virtually air-free mounting, helps speed up the plate mounting process.



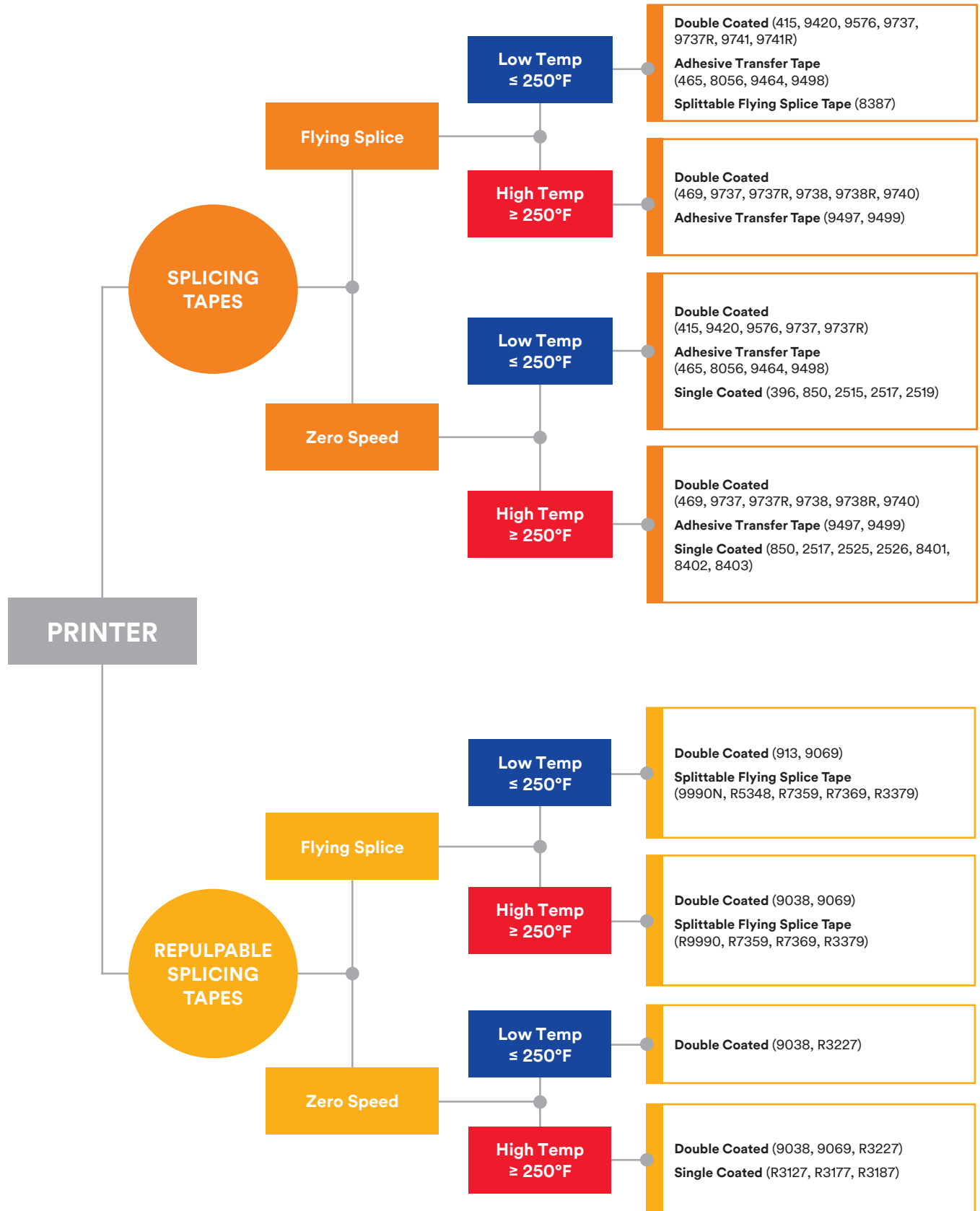
### 3M™ Primer 94

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



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

# 3M™ Splicing Tapes Selection Guide



Temperature ratings are dependent on oven time, web tension, web speed and substrate thickness. See data page for exact temperature rating.

# 3M™ Splicing Tapes

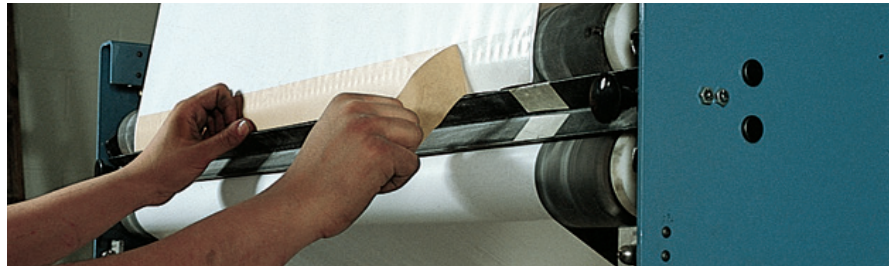
## Adhesive transfer and double coated tapes for reliable overlap splices

### 3M™ Adhesive Transfer Tapes

For an overlap splice, simply press the adhesive side of the tape to one of the surfaces to be spliced. Peel off the liner and you have a neat strip of adhesive for immediate bonding. Select from a range of adhesive properties.

### 3M™ Double Coated Tapes

Adhesive is on both sides of a carrier that increases dimensional stability of the adhesive for easy handling and application in making overlap splices.



High tack 3M™ Adhesive Transfer Tape 465 grabs fast for flying and zero speed splices, resists up to 250°F for 20 seconds.



With high tack and good shear strength, 3M™ Double Coated Tape 9420 splices plastic film quickly and securely. Red carrier identifies the splice for later removal.

## 3M™ Splicing Tapes

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

| Product Number                | Product Description   | Tape Thickness mils (mm) without liner | Carrier             |                  | Color     | Adhesion oz/in (N/25 mm) | Heat Resistance* (Short-term) °F (°C) | Go-To Application |               |
|-------------------------------|---|--|---------------------|------------------|-----------|--------------------------|---------------------------------------|-------------------|---------------|
|                               |   |  | Thickness mils (mm) | Type             |           |                          |                                       | Zero Speed        | Flying Splice |
| Based on ASTM Test Method     |   | D-3652                                 | D-3652              |                  |           | D-3330                   |                                       |                   |               |
| <b>Adhesive Transfer Tape</b> |   |  |                     |                  |           |                          |                                       |                   |               |
| 465                           | High tack, excellent adhesion to most paper stocks, flexible to -60°F   | 2.0 (0.05)                             | —                   | None             | Clear     | 25 (6.8)                 | 250 (121)                             |                   |               |
| 9498/9464                     | Low temperature splicing  | 2.0 (0.05)                             | —                   | None             | Clear/Red | 20 (6.0)                 | 250 (121)                             | ■                 |               |
| 9499/9497                     | High temperature splicing   | 2.0 (0.05)                             | —                   | None             | Clear/Red | 45 (12.5)                | 350 (177)                             | ■                 |               |
| <b>Double Coated Tapes</b>    |   |  |                     |                  |           |                          |                                       |                   |               |
| 415/9420                      | High tack adhesion to paper and many other surfaces   | 4.0 (0.10)                             | 0.5 (0.01)          | Polyester        | Clear/Red | 25 (6.8)                 | 180 (82)                              |                   |               |
| 469                           | High temperature, high tack   | 5.5 (0.14)                             | 1.0 (0.02)          | Tissue           | Red       | 60 (16.7)                | 350 (177)                             |                   | ■             |
| 9086                          | Easy tearing, easy handling, thick high tack adhesive, very conformable   | 7.5 (0.19)                             | 1.5 (0.03)          | Non-Woven Tissue | Clear     | 146 (40.0)               | 250 (121)                             |                   |               |
| 9088                          | High temperature resistance, high tack and shear strength   | 8.3 (0.20)                             | 0.5 (0.01)          | Polyester        | Clear     | 137 (37.5)               | 300 (150)                             |                   |               |
| 9576                          | Medium tack for general splicing and roll closing   | 4.0 (0.10)                             | 1.0 (0.02)          | Polypropylene    | Red/Black | 30 (13.5)                | 165 (75)                              |                   |               |
| 9737/9737R                    | Thin PET carrier, aggressive and versatile tape for many surfaces   | 3.5 (0.09)                             | 0.5 (0.01)          | Polyester        | Clear/Red | 60 (16.7)                | 300 (150)                             | ■                 | ■             |
| 9738/9738R                    | Non-woven tissue carrier, aggressive and versatile tape for many surfaces   | 4.3 (0.11)                             | 1.3 (0.03)          | Non-Woven Tissue | Clear/Red | 60 (16.7)                | 300 (150)                             | ■                 | ■             |
| 9740                          | High performance over a wide range of temperatures, high peel, tack, and shear properties, performance grade splicing for corrugators | 3.5 (0.09)                             | 0.5 (0.01)          | Polyester        | Clear     | 70 (21.2)                | 425 (218)                             |                   | ■             |
| 9741/9741R                    | Thick tape adheres to a wide variety of substrates, super aggressive for low surface energy substrates                                | 6.5 (0.17)                             | 0.5 (0.01)          | Polyester        | Clear/Red | 120 (34.0)               | 200 (93)                              |                   |               |

\*As tested in laboratory. Results may vary depending on machine and web tensions, nature of paper surface, application pressure, etc. which are outside of 3M's control.

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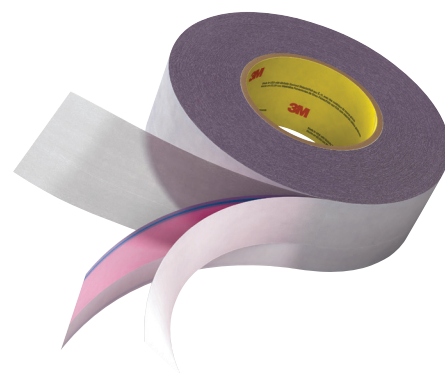
# 3M™ Splicing Tapes (cont.)

## 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)       |
|----------------|-----------------------|---------|---------------------------|--|-----------------------------|---------------------------|---|
| 8387           | Differential Adhesive | Film    | Easy-release coated paper | Splicing Side: Pink<br>Tabbing Side: Black | 7.0 (0.19)<br>without liner | 3.0 (0.09)                | Splicing: 4.0 (0.10)<br>Tabbing: 3.0 (0.09) |

## 3M™ Polyester Tapes

These high strength single-coated tapes provide thin caliper with some of the highest tensile strengths available for overlap and butt splices.



For marking splice location, 3M™ Polyester Tape 850 is available in red, black, white and silver. 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.

| Product Number   | Color             | Adhesive Type         | Backing Material | Backing Thickness mils (mm) | Total Thickness mils (mm) | Adhesion to Steel oz/in (N/100 mm) | Tensile Strength lb/in (N/100 mm) | Elongation at Break % | Temperature Range °F (°C) | Comments   |
|--|-------------------|-----------------------|------------------|-----------------------------|---------------------------|------------------------------------|-----------------------------------|-----------------------|---------------------------|--|
| Based on ASTM Test Method:                               |                   |                       |                  | D-3652                      | D-3652                    | D-3330                             | D-3759                            | D-3759                |                           |  |
| <b>General Industrial Tapes</b>                          |                   |                       |                  |                             |                           |                                    |                                   |                       |                           |  |
| 850  | Various           | Acrylic               | Polyester        | 0.9 (0.02)                  | 1.9 (0.05)                | 30 (33)                            | 28 (491)                          | 120                   | -60 to 300 (-50 to 150)   | Splicing, holding, sealing. Transparent, Red, Black, White.              |
| <b>High Temperature Masking and Liner Splicing Tapes</b> |                   |                       |                  |                             |                           |                                    |                                   |                       |                           |  |
| 8401   | Translucent Cream | Silicone/Rubber Blend | Polyester        | 1.0 (0.03)                  | 1.9 (0.05)                | 22 (24)                            | 34 (595)                          | 100                   | -60 to 300 (-50 to 150)   | Splicing many release coated paper.                                      |
| 8402   | Translucent Green | Silicone              | Polyester        | 0.9 (0.02)                  | 1.9 (0.05)                | 24 (26)                            | 25 (438)                          | 100                   | -60 to 425 (-50 to 218)   | Adheres well to silicone.  |
| 8403/<br>8403L   | Translucent Green | Silicone              | Polyester        | 1.4 (0.04)                  | 2.4 (0.06)                | 27 (29)                            | 46 (806)                          | 150                   | -60 to 425 (-50 to 218)   | Adheres well to silicone. 8403L is lined version.                        |
| 8991/<br>8991L   | Blue              | Silicone              | Polyester        | 1.0 (0.03)                  | 2.4 (0.06)                | 31 (34)                            | 29 (508)                          | 100                   | -60 to 400 (-50 to 204)   | Economical, thin tape. Adheres well to silicone. 8991L is lined version. |
| 8992/<br>8992L   | Green             | Silicone              | Polyester        | 2.0 (0.05)                  | 3.2 (0.08)                | 44 (48)                            | 57 (998)                          | 148                   | -60 to 400 (-50 to 204)   | Economical tape. Adheres well to silicone. 8992L is lined version.       |
| <b>Reflective Tapes</b>                                  |                   |                       |                  |                             |                           |                                    |                                   |                       |                           |  |
| 850  | Silver            | Acrylic               | Polyester        | 0.9 (0.02)                  | 1.9 (0.05)                | 42 (46)                            | 28 (491)                          | 120                   | -60 to 300 (-50 to 150)   | Splicing, holding, sealing, decorating, metal detecting.                 |

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

# 3M™ Splicing Tapes (cont.)

## Scotch® Flatback Crepe Tapes

With high strength paper backings, these single-coated tapes provide high machine direction tensile strength yet can be conveniently torn off the roll by hand for application ease.

With a core capability of coating technology, 3M flatback tapes offer a range of backings and adhesive strengths to hold up to your job.

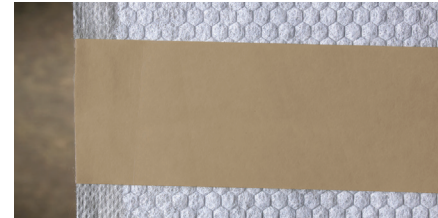
- High strength backings with strong cross direction tensile properties used for tabbing and splicing
- Highly visible backing to help you identify and remove splices



Versatile 3M™ Performance Flatback Tape 2525 provides high visibility for holding many materials, edge banding and splicing.



Scotch® Flatback Tape 2525 is great for applications requiring a unique color.



Scotch® Flatback Tape 2517 is great for low or high temperature splicing.

| Product Number             | Color             | Adhesive Type | Backing Material        | Total Thickness mils (mm) | Adhesion to Steel oz/in (N/100 mm) | Tensile Strength lb/in (N/100 mm) | Elongation at Break % | Maximum Operating Temperature °F (°C)** | Time at Maximum Temperature (mins.) | Can be Certified to Specification | Comments  |
|----------------------------|-------------------|---------------|-------------------------|---------------------------|------------------------------------|-----------------------------------|-----------------------|---|-------------------------------------|-----------------------------------|---|
| Based on ASTM Test Method: |                   |               |                         | D-3652                    | D-3330                             | D-3759                            | D-3759                |   |                                     |                                   |   |
| 250                        | Tan               | Rubber        | Flatback Paper          | 6.0 (0.15)                | 87 (95)                            | 59 (1033)                         | 4                     | 125 (52)                                | 30                                  | ASTM D 6123; D 6123M-97           | Used in paint adhesion testing.   |
| 253                        | Tan               | Silicone      | Treated Flatstock Paper | 4.6 (0.12)                | 49 (54)                            | 60 (1052)                         | 3                     | 150 (66)                                | —                                   | —                                 | Silicone butt splicing tape.  |
| 256                        | White, Red, Green | Rubber        | Flatback Paper          | 4.8 (0.12)                | 35 (38)                            | 32 (560)                          | 3                     | 200 (93)                                | 60                                  | ASTM D 6123; D 6123M-97           | Printable, accepts marking inks.  |
| 346                        | Tan               | Rubber        | Flat Paper Stock        | 16.7 (0.42)               | 22 (24)                            | 28 (490)                          | 4                     | 100 (38)                                | —                                   | —                                 | Heavy-duty abrasion, moisture, UV protection.   |
| 2515*                      | Tan               | Rubber        | Kraft Paper             | 6.4 (0.16)                | 54 (59)                            | 40 (700)                          | 9                     | 150 (65)                                | 30                                  | —                                 | General purpose splicing, holding and bundling applications.                                  |
| 2517                       | Medium Brown      | Rubber        | Kraft Paper             | 6.5 (0.16)                | 78 (85)                            | 35 (543)                          | 2                     | 300 (149)                               | 30                                  | ASTM D 6123; D 6123M-97           | Excellent splicing, holding and bundling applications.  |
| 2519                       | Brown             | Rubber        | Kraft Paper             | 7.3 (0.19)                | 45 (49)                            | 45 (790)                          | 9                     | 200 (93)                                | 30                                  | —                                 | Excellent for splicing liner boards, bundling, holding, reinforcing, wrapping and protecting. |
| 2525                       | Orange            | Rubber        | Flatback Paper          | 9.5 (0.24)                | 69 (75)                            | 49 (858)                          | 2                     | 300 (149)                               | 60                                  | —                                 | Premium splicing, bright color.   |
| 2526                       | White             | Rubber        | Flatback Paper          | 9.8 (0.24)                | 69 (75)                            | 50 (858)                          | 4                     | 300 (149)                               | 30                                  | —                                 | Excellent adhesion and strength for textile applications.                                     |

\*3M brand.

\*\*2519 Maximum Operating Temperature determined for holding a paper splice at 200°F (93°C) under a force of 2 pounds/linear inch (PLI).

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

# 3M™ Repulpable Splicing Tapes

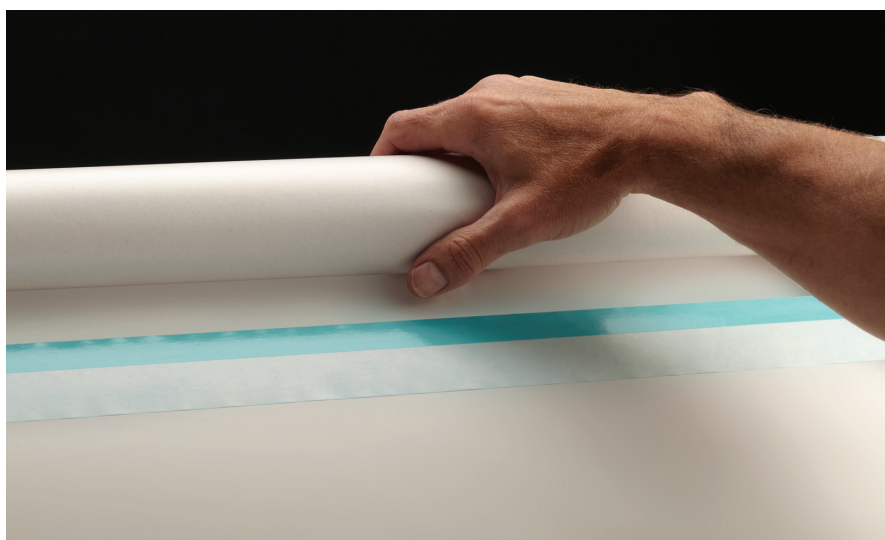
## 3M™ Repulpable Splicing Tapes for the Printing Industry

From core starting to roll closing/ tabbing and all the splices in between, this line of repulpable tapes offers choices for the dependability you need to keep production at full speed.

**Splittable Flying Splice Tapes**  
For flying splice a variety of papers.

**Repulpable Single Coated Tapes**  
For roll closing and tabbing.

**Repulpable Double Coated Tapes**  
For core starting and flying/zero speed splices.



3M™ Splicing Tape 9990N is a splittable flying splice tape with a metalized layer for automatic splice detection. It performs well on a wide range of papers.

| Product Number                        | Color                    | Comments  | Tape Thickness<br>mils (mm)<br>without liner | Tape Structure      |            | Liner |                        | Heat Resistance*<br>°F (°C) | FDA Compliant† |
|---------------------------------------|--------------------------|---|--|---------------------|------------|-------|------------------------|-----------------------------|----------------|
|                                       |                          |   |  | Backing/<br>Carrier | Adhesive   | Type  | Thickness<br>mils (mm) |                             |                |
| <b>Splittable Flying Splice (SFS)</b> |                          |   |  |                     |            |       |                        |                             |                |
| R5348                                 | Blue                     | Use with light- to medium-weight papers running through medium-temperature ovens  | 5.0 (0.11)                                   | Paper               | Repulpable | Paper | 2.9 (0.07)             | 350 (180)                   | —              |
| R7359                                 | Blue                     | Use with light- to heavy-weight papers running at high speeds and high temperatures   | 6.6 (0.17)                                   | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                   | —              |
| R7369                                 | Blue                     | Use with light- to heavy-weight paper on wide web rolls to help compensate for roll profile variations running at high speeds and high temperatures | 7.4 (0.19)                                   | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                   | —              |
| 9990N                                 | Blue                     | Splittable flying splice (SFS) system with metalized layer for auto-sensing splice detection applications   | 5.5 (0.14)                                   | Aluminized Paper**  | Repulpable | Paper | 2.2 (.05)              | 350 (180)                   | —              |
| <b>Repulpable Single Coated</b>       |                          |   |  |                     |            |       |                        |                             |                |
| R3127                                 | Blue/<br>White/<br>Kraft | General purpose, excellent holding power  | 4.5 (0.11)                                   | Paper               | Repulpable | —     | None                   | 400 (200)                   | Yes            |
| R3187                                 | Blue/<br>White/<br>Kraft | General purpose, strong repulpable backing  | 7.5 (0.19)                                   | Paper               | Repulpable | —     | None                   | 400 (200)                   | Yes            |
| R3177                                 | Blue/<br>White/<br>Red   | Heavy duty, extensible repulpable backing   | 7.0 (0.16)                                   | Paper               | Repulpable | —     | None                   | 400 (200)                   | Yes            |
| <b>Repulpable Double Coated</b>       |                          |   |  |                     |            |       |                        |                             |                |
| 913                                   | Blue                     | Paster tape for splices at newspaper printers   | 3.5 (0.09)                                   | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                   | —              |
| 9038                                  | Blue/<br>White           | General purpose plus flying splice tape for commercial printers and corrugators   | 3.5 (0.09)                                   | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 350 (180)                   | Yes            |
| 9069                                  | Blue                     | Excellent for newsprint or directory stock  | 3.5 (0.09)                                   | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                   | —              |
| R3227                                 | Blue/<br>White           | For zero speed splicing   | 3.5 (0.09)                                   | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                   | Yes            |

\*As tested in laboratory. Results may vary depending on machine and web tensions, nature of paper surface, application pressure, etc. which are outside of 3M's control.

\*\*Non-repulpable, screenable aluminized sensor strip.

†All components of the adhesive and backing meet the requirements of indirect food additive regulations as described under 21 CFR 176.170 (Components of paper and paperboard in contact with aqueous and fatty food) and 21 CFR 176.180 (Components of paper and paperboard in contact with dry foods).

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# 3M™ PTFE and UHMW-PE Tapes

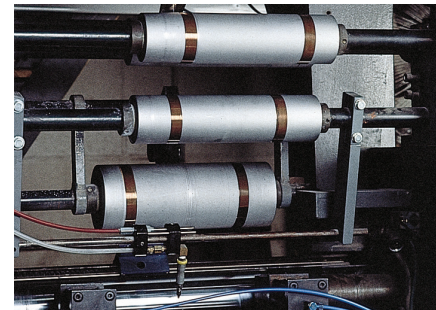
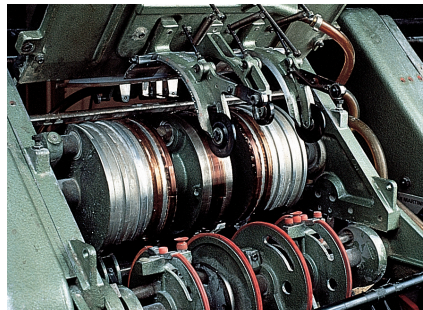
## 3M™ Slick Surface Tapes — Performance Comparison

| Attribute                     | Good                  | Better                | Best                  |
|-------------------------------|-----------------------|-----------------------|-----------------------|
| Heat Resistance               | UHMW-PE Tape          | PTFE Film Tape        | PTFE Glass Cloth Tape |
| Wear Life                     | PTFE Film Tape        | PTFE Glass Cloth Tape | UHMW-PE Tape          |
| Conformability                | PTFE Glass Cloth Tape | UHMW-PE Tape          | PTFE Film Tape        |
| Low Friction Coefficient      | UHMW-PE Tape          | PTFE Glass Cloth Tape | PTFE Film Tape        |
| Anti-stick/Solvent Resistance | PTFE Glass Cloth Tape | UHMW-PE Tape          | PTFE Film Tape        |

## 3M™ Graphics Arts Tapes

### Slick surface roller wrap tapes for smoother web movement

PTFE Tapes perform at up to 500°F (260°C) and resist chemicals. For temperatures up to 225°F (107°C) and abrasion resistance, consider UHMW-PE (Ultra High Molecular Weight Polyethylene).



Conformable 3M™ PTFE Tape helps the movement of web materials in many types of roller wrapping applications.

## 3M™ PTFE Tapes

| Product Number             | Color | Adhesive Type | Backing Material | Backing Thickness mils (mm) | Total Thickness mils (mm) | Adhesion to Steel oz/in (N/100 mm) | Tensile Strength lb/in (N/100 mm) | Elongation at Break % | Temperature Range °F (°C) | Comments                         |
|----------------------------|-------|---------------|------------------|-----------------------------|---------------------------|------------------------------------|-----------------------------------|-----------------------|---------------------------|----------------------------------|
| Based on ASTM Test Method: |       |               |                  | D-3652                      | D-3652                    | D-3330                             | D-3759                            | D-3759                |                           |                                  |
| <b>Skived Film</b>         |       |               |                  |                             |                           |                                    |                                   |                       |                           |                                  |
| 5480                       | Gray  | Silicone      | PTFE             | 2.0 (0.05)                  | 3.7 (0.09)                | 20 (22)                            | 26 (461)                          | 140                   | -65 to 500 (-54 to 260)   | Roller wrapping tape.            |
| 5481                       | Gray  | Silicone      | PTFE             | 5.0 (0.13)                  | 6.8 (0.17)                | 32 (35)                            | 59 (1039)                         | 290                   | -65 to 500 (-54 to 260)   | Heavy-duty roller wrapping tape. |
| <b>Extruded Film</b>       |       |               |                  |                             |                           |                                    |                                   |                       |                           |                                  |
| 5490                       | Gray  | Silicone      | PTFE             | 2.0 (0.05)                  | 3.7 (0.09)                | 27 (30)                            | 17 (304)                          | 170                   | -65 to 500 (-54 to 260)   | Lay-flat backing.                |
| 5491                       | Gray  | Silicone      | PTFE             | 5.0 (0.13)                  | 6.7 (0.17)                | 35 (38)                            | 42 (727)                          | 260                   | -65 to 500 (-54 to 260)   | Lay-flat backing.                |

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



# 3M™ Graphics Arts Tapes (cont.)

## 3M™ UHMW-PE Tapes

| Product Number             | Color       | Adhesive Type | Backing Material | Backing Thickness mils (mm) | Liner Type                | Total Thickness mils (mm) | Adhesion to Steel oz./in. (N/100 mm) | Tensile Strength lb./in. (N/100 mm) | Elongation at Break % | Temperature Range °F (°C) | Comments   |
|----------------------------|-------------|---------------|------------------|-----------------------------|---------------------------|---------------------------|--------------------------------------|-------------------------------------|-----------------------|---------------------------|--|
| Based on ASTM Test Method: |             |               |                  | D-3652                      |                           | D-3652                    | D-3330                               | D-3759                              | D-3759                |                           |  |
| 5421                       | Translucent | Rubber        | UHMW-PE          | 5.0 (0.13)                  | 60# Densified Kraft Paper | 6.7 (0.17)                | 34 (37)                              | 46 (796)                            | 470                   | -30 to 225 (-34 to 107)   | General purpose tape to protect plastic and metal chutes, guide rails and containers from wear.          |
| 5423                       | Translucent | Rubber        | UHMW-PE          | 10.0 (0.25)                 | 60# Densified Kraft Paper | 12 (0.30)                 | 36 (39)                              | 86 (1500)                           | 530                   | -30 to 225 (-34 to 107)   | Excellent abrasion resistance to protect plastic and metal chutes, guide rails and containers from wear. |
| 5425                       | Translucent | Acrylic       | UHMW-PE          | 3.0 (0.08)                  | 55# Densified Kraft Paper | 5.1 (0.13)                | 48 (53)                              | 25 (444)                            | 390                   | -30 to 225 (-34 to 107)   | Solvent resistant adhesive with low coefficient of friction and abrasion resistance.                     |

## Traction wrap to enhance friction for web handling

Traction wrap to enhance friction for web handling 3M™ Traction Tape 5401 bonds on contact to rollers providing non-stick traction for enhanced friction that improves web handling.



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.

## 3M™ Application Specific Tapes

| Product Number            | Color    | Adhesive Type | Backing Material               | Backing Thickness mils (mm) | Liner Type     | Total Thickness mils (mm) | Adhesion to Steel oz./in. (N/100 mm) | Tensile Strength lb./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>Graphic Arts Tapes</b> |          |               |                                |                             |                |                           |                                      |                                     |                       |                           |  |
| 235                       | Black    | Rubber        | Crepe Paper                    | 5.0 (0.12)                  | —              | 7.0 (0.17)                | 23 (25)                              | 22 (386)                            | 9                     | Up to 200 (Up to 93)      | Photographic masking.                      |
| 616                       | Ruby Red | Rubber        | UPVC                           | 1.6 (0.04)                  | —              | 2.4 (0.06)                | 36 (39)                              | 29 (509)                            | 50                    | Up to 120 (Up to 49)      | Lithographers tape.                        |
| 3051                      | White    | Acrylic       | Flatback Paper                 | 3.4 (0.09)                  | —              | 3.8 (0.10)                | 4 (4)                                | 39 (680)                            | 2                     | Up to 150 (Up to 65)      | Very low tack.                             |
| <b>Traction Tapes</b>     |          |               |                                |                             |                |                           |                                      |                                     |                       |                           |  |
| 5401                      | Tan      | Silicone      | Fiberglass Reinforced Silicone | 8.0 (0.20)                  | —              | 9.3 (0.24)                | 12 (13)                              | 220 (3853)                          | 7                     | Up to 300 (Up to 148)     | High coefficient of friction for traction. |
| 5461                      | White    | Rubber        | Silicone Rubber                | 7.8 (0.19)                  | Silicone-Paper | 9.1 (0.23)                | 30 (33)                              | 85 (1500)                           | 165                   | Up to 200 (Up to 93)      | High friction roller tape.                 |

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

# Scotch® ATG Transfer Tapes

## Finger touch application of pressure sensitive adhesive

Versatility, convenience and speed. That's what you get with Scotch® ATG Transfer Tapes for assembly operations in businesses ranging from appliance and printing to P.O.P. and electronics. Readily bond, join, mount, or laminate materials such as paper, plastics, metal, foam and more.

With Scotch® ATG Applicators, a touch of the finger triggers a quick, controlled application of Scotch® ATG Transfer Tape at the same time as the liner rewinds into the applicator. There is no mess and no cleanup. 3M advanced acrylic adhesive bonds on contact and is formulated with a choice of properties such as high temperature resistance, differential tack, adhesion to low surface energy plastic and more.



For musical greeting cards, securely attach the metal audio module to the heavy paper stock and bond the edges of the fold-over flap to seal in the module.



Scotch® ATG Applicator 700 with Scotch® ATG Transfer Tape 924 makes fast work of folder assembly. Pressure sensitive adhesive bonds immediately and the folder pocket is ready to hold contents.



Scotch® ATG Applicator 700 for 3/4" and 1/2" wide tape



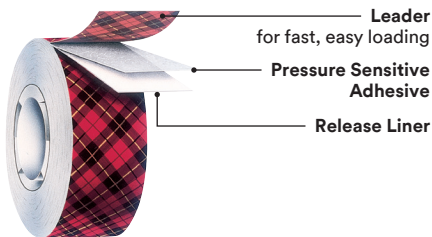
Scotch® ATG Applicator 714 for 1/4" wide tape



Scotch® ATG Applicator 752C for 3/4", 1/2" and 1/4" wide tape (1/4" adapter purchased separately)



Scotch® ATG Applicator 3662 for 2" wide tape



| Product Number                            | Tape Thickness w/o Liner mils (mm) | Description   | Temperature Resistance |               | Solvent Resistance | Relative Adhesion |         | Application Ideas  | Adhesive Transfer Tape Equivalent |
|---|------------------------------------|---|------------------------|---------------|--------------------|-------------------|---------|--|-----------------------------------|
|   |                                    |   | Minutes Hours          | Days Weeks    |                    | HSE               | LSE     |  |                                   |
| <b>300 (High Tack Acrylic)</b>            |                                    |   |                        |               |                    |                   |         |  |                                   |
| 976                                       | 2 (0.05)                           | High tack. Excellent adhesion to most plastics.                 | 250°F (121°C)          | 150°F (65°C)  | Med                | High              | High    | Attach fabric swatches in sample books. Assemble point-of-purchase displays. Bond trim strips to furniture or luggage. Bond labels to plastic toys. Attach gaskets or foams. | 927                               |
| 969                                       | 5 (0.13)                           | High tack. Excellent adhesion to most plastics.                 | 250°F (121°C)          | 150°F (65°C)  | Med                | High              | High    | Assemble point-of-purchase displays. Bond trim strips to furniture or luggage. Bond labels to plastic toys. Attach gaskets or foams.   | 950                               |
| <b>350 (High Performance Acrylic)</b>     |                                    |   |                        |               |                    |                   |         |  |                                   |
| 926                                       | 5 (0.13)                           | High performance. Excellent temperature and solvent resistance. | 450°F (232°C)          | 300°F (149°C) | High               | High              | High    | Bond fabric or trim to window blinds. Splice aluminum coils. Bond foam insulation. Mount nameplates on award plaques.  | F9485PC                           |
| <b>400 (General Purpose Adhesive)</b>     |                                    |   |                        |               |                    |                   |         |  |                                   |
| 924                                       | 2 (0.05)                           | General purpose. Excellent adhesion to most paper stocks.       | 250°F (121°C)          | 180°F (82°C)  | Med                | Med               | Low     | Seal pocket in folders. Bond mat board in picture frames. Splice paper, films, foils. General purpose bindery attaching.   | 465                               |
| 987*                                      | 1.7 (0.040)                        | General purpose. Excellent adhesion to most paper stocks.       | 250°F (121°C)          | 180°F (82°C)  | Med                | Med               | Low     | Seal pocket in folders. Bond mat board in picture frames. Splice paper, films, foils. General purpose bindery attaching.   | 9498                              |
| <b>400/1000 (Repositionable Adhesive)</b> |                                    |   |                        |               |                    |                   |         |  |                                   |
| 928                                       | 2 (0.05)                           | Differential tack. Repositionable.                              | 180°F (82°C)           | 150°F (65°C)  | Med                | High/Low          | Low/Low | Attach credit card in mailer. Core start/end tab paper, films and foils. Attach temporary labels.  | 9416                              |

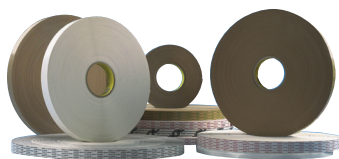
\*3M brand. Relative Adhesion: HSE — High Surface Energy; LSE — Low Surface Energy

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

# 3M™ Extended Liner Tapes

## Versatile pressure sensitive adhesive on easy-to-remove liners

3M™ Extended Liner Tapes offer the adhesive versatility of 3M tapes but with liners wider than the adhesive. This leaves an easy-to-lift edge for convenient and easy liner removal. With the variety of adhesives, you have a selection of performance characteristics such as high tack for coated papers and plastics, low tack for temporary attachment, high temperature resistance and more. Apply manually or with equipment matched to your production volume requirements.



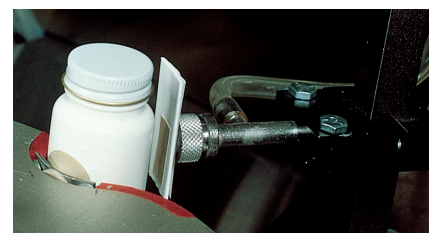
3M™ Extended Liner Tapes are available with a release liner wider than the adhesive. This provides an easy-to-grab edge for convenient liner removal.



Depending on adhesive type, 3M™ Extended Liner Tapes are applied to envelopes, polybags, boxes or tubes. User simply peels off liner to expose the adhesive for an immediate, secure closure.



Automatic and semi-automatic equipment is available for higher volume applications. For example, apply tape to business forms, literature, bounce back and business reply cards.



3M™ Extended Liner Tapes 450XL, 450EK and 465XL immediately bond product information “outserts” to polyethylene bottles. Holds tightly but can be cleanly removed.

| Product Number      | Tape Thickness w/o liner mils (mm) | Liner Type                           | Description   | Temperature Resistance |              | Solvent Resistance | Relative Adhesion |      | Application Ideas   |
|---------------------|------------------------------------|--------------------------------------|---|------------------------|--------------|--------------------|-------------------|------|---|
|                     |                                    |                                      |   | Minutes Hours          | Days Weeks   |                    | HSE               | LSE  |   |
| <b>340</b>          |                                    |                                      |   |                        |              |                    |                   |      |   |
| 466XL               | 2 (0.05)                           | 62# DK White with Black Print        | High tack; Permanent  | 180°F (82°C)           | 150°F (65°C) | Med                | High              | High | Coated papers and low surface energy (LSE) plastics. Overnight envelopes. Features an end-of-roll indicator tab for automated dispensing.   |
| <b>400</b>          |                                    |                                      |   |                        |              |                    |                   |      |   |
| 465XL               | 2 (0.05)                           | 60# DK Tan with Green Print          |   |                        |              |                    |                   |      | Seal flaps on overnight envelopes. Pressure sensitive edging on business forms. General commercial joining applications. For attaching materials that require more adhesive thickness. Larger outsert attachments.          |
| 450EK               | 1 (0.025)                          | 78# Extensible Kraft White w/o Print | General purpose   | 250°F (121°C)          | 180°F (82°C) | Med                | Med               | Low  | Pharmaceutical outsert attachment. For applications requiring a more tear resistant liner.  |
| 450XL               | 1 (0.025)                          | 60# DK Tan with Green Print          |   |                        |              |                    |                   |      | Pharmaceutical outsert attachment. General paper attachment.  |
| 920XL               | 1 (0.025)                          | 40# DK White with Red Print          |   |                        |              |                    |                   |      | Seal flaps on polybags and envelopes. Pressure sensitive edging on business forms, literature, photos, posters and labels.  |
| 9926XL              | 1 (0.025)                          | 40# DK White with Red Print          | General purpose   | 180°F (82°C)           | 150°F (65°C) | Med                | Med               | Low  | Economical alternative for general paper-to-paper applications.   |
| <b>600</b>          |                                    |                                      |   |                        |              |                    |                   |      |   |
| 9934XL              | 4 (0.10)                           | 60# DK tan without Print             | High tack to LSE materials  | 150°F (65°C)           | 120°F (49°C) | Med                | High              | High | P.O.P. displays. Difficult splicing applications, shelf talkers, price tags, polyethylene foam bonding. Indirect food-contact applications. <sup>1</sup> High tack to LSE materials.  |
| <b>760</b>          |                                    |                                      |   |                        |              |                    |                   |      |   |
| 476XL               | 6 (0.16)                           | 62# DK White with Red Print          | High tack, double coated film   | 150°F (65°C)           | 120°F (49°C) | Med                | High              | High | Heavy-duty sealing. Mounting of promotional items. Core starting. Closure of overnight boxes, tubes and envelopes. Indirect food-contact applications. <sup>1</sup>   |
| <b>770</b>          |                                    |                                      |   |                        |              |                    |                   |      |   |
| 9925XL <sup>2</sup> | 2.5 (0.065)                        | 43# DK White with Black Print        | Tissue reinforced; High initial adhesion to a wide variety of materials | 150°F (65°C)           | 100°F (41°C) | Low                | Med               | Med  | General mounting. P.O.P. items. Attaching tags and labels. Core starting. Permanent bonding paper-to-paper, business forms, traffic tickets, novelty items and literature. Indirect food-contact applications. <sup>1</sup> |

1. FDA acceptable dry ingredients listed as indirect food-contact additives when used in food packing with minimal opportunity for exposure.

2. Non-liner side is adhesive coated full width.

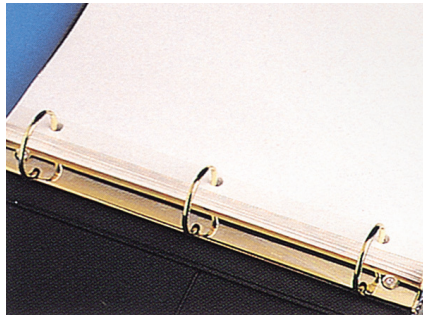
**Relative Adhesion:** HSE – High Surface Energy; LSE – Low Surface Energy

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

# 3M™ Polyester Tapes for Edging and Reinforcing

## Tear resistant reinforcement

With thin caliper and tear resistance, 3M™ Polyester Tapes provide tough low-profile reinforcement for card stock edges and punch holes. Choice of tape thickness and adhesives helps meet various end use conditions.



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.

| Product Number | Backing Material | Adhesive Type | Tensile Strength lb/in (N/100 mm) | Total Thickness mils (mm) | Adhesion Strength oz/in (N/100 mm) | Elongation at Break (%) | Color       | Comments  |
|----------------|------------------|---------------|-----------------------------------|---------------------------|------------------------------------|-------------------------|-------------|---|
|                |                  |               | D-3759                            | D-3652                    | D-3330                             | D-3759                  |             |   |
| 856            | Polyester        | Acrylic       | 25 (438)                          | 2.0 (0.05)                | 20 (22)                            | 90                      | Transparent | General industrial tape. Economy edge and hole reinforcing.                     |
| 8411           | Polyester        | Acrylic       | 26 (456)                          | 1.5 (0.04)                | 30 (33)                            | 120                     | Transparent | Release surface and liner splicing tape. Performance edge and hole reinforcing. |
| 8412           | Polyester        | Acrylic       | 120 (2100)                        | 6.3 (0.16)                | 42 (46)                            | 130                     | Transparent | Release surface and liner splicing tape. Heavy-duty edge and hole reinforcing.  |

# Scotch® Tear Strip Tape

## Easy access with a simple pull

For easy opening of packages ranging from overnight envelopes to corrugated fiberboard, the recipient simply grabs and pulls the exposed end of a Scotch® Tear Strip Tape.

- Tensitized polypropylene tears through paper board and light to heavy weight fiber board with high pull-rate success
- Eliminates knives or other sharp edges from opening envelopes and panels



For overnight courier envelopes and mail order boxes, Scotch® Tear Strip Tape provides superior resistance to edge nicking and tearing compared to other film tear strip tapes without reinforcement.



Scotch® Tear Strip Tape with superior tensile strength tears through medium to heavy weight corrugated fiberboard as used in household detergent boxes.

| Product Number | Backing Material | Reinforcement | Adhesive Type    | Tensile Strength lb/in (N/100 mm) | Total Thickness mils (mm) | Adhesion Strength oz/in (N/100 mm) | Elongation at Break (%) | Color | Comments   |
|----------------|------------------|---------------|------------------|-----------------------------------|---------------------------|------------------------------------|-------------------------|-------|--|
|                |                  |               |                  | D-3759                            | D-3652                    | D-3330                             |                         |       |  |
| 8624           | Polypropylene    | None          | Synthetic Rubber | 160 (2802)                        | 4.5 (0.114)               | 65 (71)                            | 30                      | Blue  | Medium-strength tear strip for light- to medium-weight fiberboard packaging materials. |

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

## 3M™ Splicing and Repulpable Tapes

### Tapes for paper mills and converters

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



3M™ Repulpable Splittable Flying Splice Tape 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. A fiber-free break open means less blanket cleanup.



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



3M provides a complete line of core starting tapes that are easy to use and stick reliably every time.



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



One simple splice with 3M™ Splittable Flying Splice Tape replaces complex patterns.



For core starting and roll closing, the hand-held 3M™ Repulpable Tape Applicator RTA-500 dispenses tape and disposes of the liner with one pull of the trigger.

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

# 3M™ Splicing and Repulpable Tapes (cont.)

## 3M™ Repulpable Splicing Tapes for the Paper Mills

| Product Number                        | Color                    | Comments   | Tape Thickness<br>mils (mm) | Tape Structure      |            | Liner |                        | Heat Resistance<br>°F (°C) | FDA Compliant <sup>†</sup> |
|---------------------------------------|--------------------------|--|-----------------------------|---------------------|------------|-------|------------------------|----------------------------|----------------------------|
|                                       |                          |  |                             | Backing/<br>Carrier | Adhesive   | Type  | Thickness<br>mils (mm) |                            |                            |
| <b>Permanent Double Coated</b>        |                          |  |                             |                     |            |       |                        |                            |                            |
| 405                                   | Lt. Green                | Excellent for raw and starch-treated papers  | 3.0 (0.08)                  | Tissue Carrier      | Repulpable | UPVC  | 1.7 (0.04)             | 400 (200)                  | —                          |
| 900                                   | Blue                     | Recommended for light weight coated papers   | 2.5 (0.06)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | Yes                        |
| 900B                                  | Blue                     | Recommended for supercalendered papers   | 2.5 (0.06)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | Yes                        |
| <b>Permanent Single Coated</b>        |                          |  |                             |                     |            |       |                        |                            |                            |
| 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 | —     | None                   | 400 (200)                  | Yes                        |
| 914                                   | Blue                     | Recommended for high speeds, digital business forms, perforated splicing tape.   | 4.0 (0.10)                  | Paper               | Repulpable | —     | None                   | 400 (200)                  | Yes                        |
| 9103                                  | Blue                     | Printable, coatable backing.   | 4.5 (0.11)                  | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                  | Yes                        |
| 9960                                  | Blue                     | Thinnest butt splicing tape for light weight uncoated and coated and supercalendered papers.   | 2.2 (0.06)                  | Paper               | Repulpable | Paper | 2.9 (0.07)             | 350 (180)                  | Yes                        |
| 9969                                  | Blue/<br>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)                  | Yes                        |
| <b>Temporary Double Coated</b>        |                          |  |                             |                     |            |       |                        |                            |                            |
| 906                                   | Blue/<br>White           | Flying splice at the Off-Machine Coater (OMC).   | 3.0 (0.08)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | Yes                        |
| 9069                                  | Blue                     | Excellent for newsprint or directory stock.  | 3.5 (0.09)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | —                          |
| 9977                                  | Blue                     | High strength tissue for flying splices where extra strength is needed.  | 4.0 (0.10)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | —                          |
| R3227                                 | Blue/<br>White           | General purpose temporary splicing.  | 3.5 (0.09)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | Yes                        |
| R3257                                 | White                    | Thin tissue, very high tack.   | 4.1 (0.11)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | Yes                        |
| R3287                                 | White                    | Heavy tissue, very high tack.  | 5.5 (0.14)                  | Tissue Carrier      | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                  | Yes                        |
| <b>Temporary Single Coated</b>        |                          |  |                             |                     |            |       |                        |                            |                            |
| R3127                                 | Blue/<br>White/<br>Kraft | General purpose, excellent holding power.  | 4.5 (0.11)                  | Paper               | Repulpable | —     | None                   | 400 (200)                  | Yes                        |
| R3177                                 | Blue/<br>White/<br>Red   | Heavy duty, extensible repulpable backing.   | 7.0 (0.16)                  | Paper               | Repulpable | —     | None                   | 400 (200)                  | Yes                        |
| R3187                                 | Blue/<br>White/<br>Kraft | General purpose, strong repulpable backing.  | 7.5 (0.19)                  | Paper               | Repulpable | —     | None                   | 400 (200)                  | Yes                        |
| <b>Splittable Flying Splice (SFS)</b> |                          |  |                             |                     |            |       |                        |                            |                            |
| R3345                                 | Blue                     | Thin SFS tape for flying splices through supercalendering operations, and permanent butt splices for light weight coated papers.   | 4.8 (0.12)                  | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                  | —                          |
| R3375                                 | Blue                     | Strong SFS tape for flying splices on heavy papers and high tension web processing through supercalendering operations.  | 6.5 (0.16)                  | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                  | —                          |
| R3379                                 | Blue                     | Repulpable Splittable Flying Splice Tape is used for high speed splicing conditions when high tack is required and to compensate for roll profile issues.  | 7.5 (0.18)                  | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                  | —                          |
| R3389B                                | Blue                     | Repulpable Splittable Flying Splice Tape for heavyweight papers in manual and automatic splicing equipment for high speed splicing conditions when high tack is required and to compensate for roll profile issues; Additional blue color on the backside. | 7.0 (0.16)                  | Paper               | Repulpable | Paper | 2.9 (0.07)             | 400 (200)                  | —                          |

<sup>†</sup>All components of the adhesive and backing meet the requirements of indirect food additive regulations as described under 21 CFR 176.170 (Components of paper and paperboard in contact with aqueous and fatty food) and 21 CFR 176.180 (Components of paper and paperboard in contact with dry foods).

\*Food Contact Notification issued by FDA.

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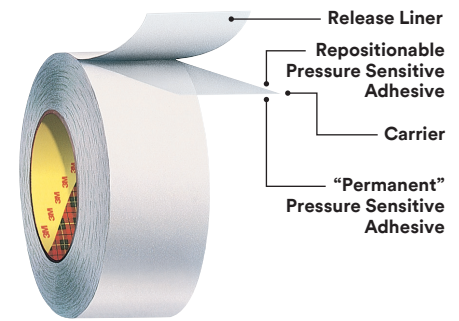
## 3M™ Splicing Aids

### Technology for knife cut signaling, core starting and more

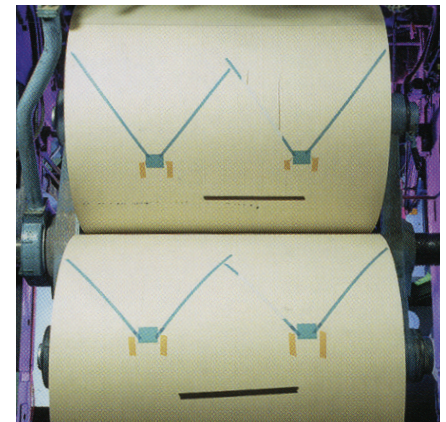
Building on the wide variety of adhesives and backings, 3M has developed specialized tapes for splicing and other web process aids.

For example, black crepe paper tape conforms to the roll and signals the knife cut during the splicing process.

For reusing cores, double coated removable/repositionable tape features a permanent adhesive on one side of a carrier that bonds permanently to the core. Adhesive strength on the other side of the carrier holds paper and film with enough strength for reliable wind-up but easy release when unwinding.



High tack side of 3M™ Removable/Repositionable Tape 9415PC permanently adheres to the core. Low tack side holds paper or film for wind-up, yet releases when needed during unwinding.



To mark a roll with opaque black crepe tape to signal a knife cut during a splicing operation, you can select either the 5.6 mil thick 3M™ Crepe Masking Tape 2510 or the 7.0 mil thick 3M™ Photographic Light Blocking Tape 235. With conformable backing and rubber adhesive, both tapes hold securely at full operating speeds.

| Product Number                    | Color       | Adhesive Type   | Backing Material  | Total Thickness mils (mm) | Liner               | Maximum Operating Temperature °F (°C) | Comments  |
|-----------------------------------|-------------|---|-------------------|---------------------------|---------------------|---------------------------------------|---|
| <b>Based on ASTM Test Method:</b> |             |   |                   |                           |                     |                                       |   |
| <b>Single Coated Tapes</b>        |             |   |                   |                           |                     |                                       |   |
| 235                               | Black       | Rubber  | Crepe Paper       | 7.0 (0.18)                | None                | 200 (93)                              | Photographic light blocking tape.                                 |
| 2510                              | Black       | Rubber  | Crepe Paper       | 5.6 (0.14)                | None                | 200 (93) for 1 hr                     | For marking and light blocking.                                   |
| <b>Double Coated Tapes</b>        |             |   |                   |                           |                     |                                       |   |
| 9030                              | Blue        | High Tack Repulpable  | Tissue Carrier    | 3.0 (0.075)               | Semi-bleached kraft | 400 (204)                             | Nose tabs for quick grab to newsprint.                            |
| 9415PC                            | Translucent | 1000 (repositionable) adhesive on one side; 400 (permanent) on the other side | PET Carrier       | 2.0 (0.05)                | 78# PCK             | 180 (82)                              | Removable/repositionable tape for core starting and roll tabbing. |
| 9425                              | Clear       | 1050 (repositionable) adhesive on one side; 420 (permanent) on the other side | UPVC Film Carrier | 5.5 (0.14)                | 58# PCK             | 125 (52)                              |   |

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## Scotch® and Tartan™ Box Sealing Tapes

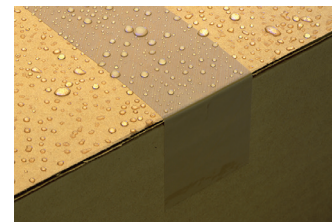
### Built tough for dependability

With choices of polyester or polypropylene backings and synthetic rubber or acrylic adhesives, you have dependability for a wide variety of box types, sizes, contents, handling situations and storage conditions.

- Reliability even with the stresses of over packed or under packed boxes
- Quick, easy application by hand, manual dispensers or 3M-Matic™ Case Sealers
- Choice of lengths, widths and colors to meet specific needs
- Scotch® Recycled Corrugate Tapes are made with a proprietary adhesive designed specifically for recycled corrugate cartons
- Specialty tapes add specialized form and/or functional properties for specific applications across all markets



Scotch® Box Sealing Tapes with polyester backing and synthetic rubber adhesive resist the moisture in storage and shipping.



Consistent quality of Scotch® Box Sealing Tapes means fewer interruptions on your packaging line.



Scotch® Box Sealing Tape 3779 alerts receivers to unauthorized opening with a red “Check Seal Before Accepting”.

| Product Number                          | Tape Structure (Backing/Adhesive) | Adhesion to Steel oz./in. (N/100 mm) | Tensile Strength lbs./in. (N/100 mm) | Elongation at Break (%) | Backing Thickness mils (mm) | Total Thickness mils (mm) | Available Colors/Comments  |
|---|-----------------------------------|--------------------------------------|--------------------------------------|-------------------------|-----------------------------|---------------------------|--|
| <b>ASTM Test Method</b>                 |                                   | <b>D-3330</b>                        | <b>D-3759</b>                        | <b>D-3759</b>           | <b>D-3652</b>               | <b>D-3652</b>             |  |
| <b>Scotch® Box Sealing Tapes</b>        |                                   |                                      |                                      |                         |                             |                           |  |
| 311                                     | Polypropylene/Acrylic             | 22 (24)                              | 25 (438)                             | 125                     | 1.1 (.028)                  | 2.05 (.052)               | Clear, Tan, Red, Yellow, Blue, White   |
| 313                                     | Polypropylene/Acrylic             | 32 (35)                              | 35 (613)                             | 125                     | 1.6 (.041)                  | 2.55 (.065)               | Clear, Tan   |
| 353                                     | Polyester/Synthetic Rubber        | 45 (49)                              | 25 (437)                             | 110                     | 1.0 (.025)                  | 1.9 (.048)                | Clear, Tan   |
| 355                                     | Polyester/Synthetic Rubber        | 78 (85)                              | 67 (1174)                            | 130                     | 2.0 (.051)                  | 3.43 (.089)               | Clear, Tan or Custom Printed   |
| 371                                     | Polypropylene/Synthetic Rubber    | 40 (44)                              | 22 (385)                             | 160                     | 1.2 (.030)                  | 1.8 (.046)                | Clear, Tan, Blue, Green, Orange, Red, White, Yellow or Custom Printed  |
| 372                                     | Polypropylene/Synthetic Rubber    | 45 (49)                              | 26 (455)                             | 160                     | 1.4 (.035)                  | 2.2 (.056)                | Clear, Tan or Custom Printed   |
| 373                                     | Polypropylene/Synthetic Rubber    | 50 (55)                              | 30 (525)                             | 160                     | 1.6 (.041)                  | 2.5 (.064)                | Clear, Tan, Blue, Green, Orange, Red, White, Yellow or Custom Printed  |
| 375                                     | Polypropylene/Synthetic Rubber    | 55 (60)                              | 35 (613)                             | 160                     | 2.0 (.051)                  | 3.1 (.079)                | Clear, Tan or Custom Printed   |
| <b>Scotch® Recycled Corrugate Tapes</b> |                                   |                                      |                                      |                         |                             |                           |  |
| 3071                                    | Polypropylene/Synthetic Rubber    | 45 (49)                              | 22 (385)                             | 160                     | 1.2 (.030)                  | 2.1 (.053)                | For use on recycled corrugate cartons, Custom Printed  |
| 3072                                    | Polypropylene/Synthetic Rubber    | 65 (71)                              | 22 (385)                             | 160                     | 1.2 (.030)                  | 2.3 (.058)                | For use on recycled corrugate cartons, Custom Printed  |
| 3073                                    | Polypropylene/Synthetic Rubber    | 46 (50)                              | 30 (525)                             | 160                     | 1.6 (.041)                  | 2.6 (.066)                | For use on recycled corrugate cartons, Custom Printed, 10% bio-based content   |
| <b>Tartan™ Box Sealing Tapes</b>        |                                   |                                      |                                      |                         |                             |                           |  |
| 302                                     | Polypropylene/Acrylic             | 18 (20)                              | 23 (402)                             | 116                     | 1.0 (.025)                  | 1.6 (.040)                | Clear, Tan   |
| 305                                     | Polypropylene/Acrylic             | 18 (20)                              | 21 (368)                             | 116                     | 1.0 (.025)                  | 1.8 (.046)                | Clear, Tan   |
| 369                                     | Polypropylene/Synthetic Rubber    | 30 (32)                              | 19 (333)                             | 160                     | 1.0 (.025)                  | 1.6 (.041)                | Clear, Tan   |
| <b>Custom Printed Tapes</b>             |                                   |                                      |                                      |                         |                             |                           |  |
| 355CP                                   | Polyester/Synthetic Rubber        | 78 (85)                              | 67 (1174)                            | 130                     | 2.0 (.051)                  | 3.42 (.089)               | Clear, Tan   |
| <b>Security Tapes</b>                   |                                   |                                      |                                      |                         |                             |                           |  |
| 3199                                    | Polypropylene/Acrylic             | 22 (24)                              | 25 (438)                             | 125                     | 1.1 (.028)                  | 2.05 (.052)               | Clear with Red Type: CHECK SEAL BEFORE ACCEPTING<br>Tan with Red Type: IF SEAL IS BROKEN CHECK CONTENTS BEFORE ACCEPTING |
| 3732                                    | Polypropylene/Synthetic Rubber    | 50 (55)                              | 30 (525)                             | 160                     | 1.6 (.041)                  | 2.5 (.064)                | Clear with Red Type: CHECK SEAL BEFORE ACCEPTING   |
| 3779                                    |                                   | 40 (44)                              | 22 (385)                             | 160                     | 1.2 (.030)                  | 1.8 (.046)                | Clear with Red Type: CHECK SEAL BEFORE ACCEPTING   |

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



# Scotch® Tape Dispensers

## Easy dispensing for manufacturing, office, commercial and retail jobs

All Scotch® Manual Dispensers for box sealing tapes, filament tapes, film tapes, label protection tapes and pouch tapes are application-designed to meet the needs of the customer. Select from a variety of hand-held and heavy duty pull-and-tear table top dispensers.



Hand-held dispensers for use with specially formulated Scotch® Box Sealing Tapes.



Portable, lightweight, easy to operate, hand-held dispenser with a retractable blade.



A hand-held, roll-on, pistol-grip dispenser designed to reduce the noise of tape unwind.



Hand-held dispensers for use with Scotch® High Strength Filament Tapes.



Manual heavy-duty dispensers for use with 3M™ Narrow Width Film Tapes.



Dispenser for pull and tear of up to 6 inches total width of tapes. P56W offers weighted base.



Dispensers that deliver a uniform length of 3M™ Narrow Width Tape and Scotch® Filament Tapes every time quickly and easily.

| Product Number                               | Product Description  | Max Tape Width |
|--|--|----------------|
| <b>Hand-Held Box Sealing Tape Dispensers</b> |  |                |
| H100   | Durable, lightweight, plastic tape dispenser   | 50.8mm         |
| H122   | Durable plastic dispenser with built-in brake for precise seals  | 48mm           |
| H123   | Lightweight, compact metal tape dispenser  | 72mm           |
| H128   | Heavy-duty durable metal tape dispenser  | 48mm           |
| H129   | Quick and easy one hand method to apply, cut, and buff the tape closures                               | 48mm           |
| H150   | Tape dispenser designed to reduce the noise of tape unwind during application                          | 48mm           |
| H180   | Portable and easy to operate pistol grip dispenser   | 48mm           |
| H183   | Portable and easy to operate pistol grip dispenser   | 72mm           |
| H190   | Pistol grip dispenser features pull apart design   | 48mm           |
| H192   | Ergonomical tape dispenser with hand brake   | 48mm           |
| H320   | Ultra-light, economical, plastic tape dispenser  | 48mm           |
| H1755  | Lightweight, pistol grip tape dispenser  | 48mm           |
| HB903  | Economical pistol grip tape dispenser  | 48mm           |
| HR80   | Portable, lightweight, easy to operate, dispenser with a retractable blade                             | 48mm           |
| HR83   | Tape dispenser with a retractable blade  | 72mm           |
| <b>Table Top Dispensers</b>                  |  |                |
| C22  | Weighted dispenser for easy pull and cut tape dispensing   | 2 in.          |
| M96  | Definite length dispenser — dispenses tape in lengths of 3/4 in. to 5 in. per stroke                   | 1 in.          |
| M920   | Definite length dispenser — dispenses tape in lengths of 1/2 in. to 4 in. per stroke                   | 1 in.          |
| P56  | Mainline tabletop manual pull and cut dispenser with multiple roll capacity                            | 6 in.          |
| P56W   | Mainline tabletop manual pull and cut dispenser with multiple roll capacity (comes with weighted base) | 6 in.          |

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

# 3M-Matic™ Case Sealers

## Adjustable case sealers

With quick manual height and width adjustment, these rugged units reliably and accurately seal runs of the same size cartons.




## Random Case Sealers

Adjusting height and width automatically, these rugged units reliably and accurately seal runs of random size cartons.

**200a\***


- Up to 40 cs/min
- Up to 85 lbs
- Bottom belt drive



3M-Matic™ Case Sealer 200a is an adjustable bottom belt drive case sealer to dependably seal uniform cases at up to 40 per minute.

**7000a Pro\***


- Up to 40 cs/min
- Up to 85 lbs
- Top and bottom belt drives



3M-Matic™ Adjustable Case Sealer 7000a Pro is an adjustable top and bottom belt drive to dependably seal uniform cases at up to 40 cases per minute.

**8000a\***

- Up to 40 cs/min
- Up to 85 lbs
- Side belt drives



3M-Matic™ Side Belt Adjustable Case Sealer 8000a is an adjustable side belt drive case sealer. Seals up to 40 cases per minute, using tape widths from 36mm to 48mm, and also 72mm tape.

**7000r Pro\***

- Up to 24 cs/min
- Up to 85 lbs
- Top and bottom belt drives



3M-Matic™ Random Case Sealer 7000r Pro is a semi-automatic random case sealer that automatically adjusts for case height and width and is capable of sealing 24 cases per minute, using tape widths from 36mm to 48mm wide.

| Machine   | Drive System   | Box Size Capacity (inches) |     |            |         |      |             | Power Requirements    |                     | Operating Rate (cs/min) | Belt-Drive Speed ft/min (m/s) | Taping Head         | Comments  |
|---|----------------|----------------------------|-----|------------|---------|------|-------------|-----------------------|---------------------|-------------------------|-------------------------------|---------------------|---|
|   |                | Minimum                    |     |            | Maximum |      |             | Electrical            | Air                 |                         |                               |                     |   |
| <b>Adjustable Case Sealer — Bottom Belt Drive Systems</b>         |                |                            |     |            |         |      |             |                       |                     |                         |                               |                     |   |
| 200a  | Bottom         | 6.0                        | 6.5 | 4.5 [3.75] | N/L     | 21.5 | 24.5 [28.5] | 115VAC 60Hz 1.9A 220W | No Air              | Up to 40                | 100 (0,5)                     | 2" 3M™ AccuGlide™ 3 | Semi-Automatic Adjustable.                                  |
| <b>Adjustable Case Sealer — Top and Bottom Belt Drive Systems</b> |                |                            |     |            |         |      |             |                       |                     |                         |                               |                     |   |
| 7000a Pro   | Top and Bottom | 6.0                        | 6.5 | 2.0        | N/L     | 26.5 | 28.0        | 115VAC 60Hz 3.8A 440W | No Air              | Up to 40                | 100 (0,5)                     | 2" 3M™ AccuGlide™ 3 |   |
| <b>Adjustable Case Sealer — Side Belt Drive Systems</b>           |                |                            |     |            |         |      |             |                       |                     |                         |                               |                     |   |
| 8000a   | Side           | 6.0                        | 4.5 | 3.75       | N/L     | 21.5 | 27.25       | 115VAC 60Hz 3.8A 440W | No Air              | Up to 40                | 100 (0,5)                     | 2" 3M™ AccuGlide™ 3 | Extended size capabilities are possible, please contact 3M. |
| <b>Random Case Sealer — Top and Bottom Belt Drive Systems</b>     |                |                            |     |            |         |      |             |                       |                     |                         |                               |                     |   |
| 7000r Pro   | Top and Bottom | 6.0                        | 6.5 | 2.25       | N/L     | 26.5 | 26.0        | 115VAC 60Hz 3.8A 440W | 3.75 SCFM @ 85 PSIG | Up to 24                | 100 (0,5)                     | 2" 3M™ AccuGlide™ 3 |   |

Standard size capabilities are listed above. If additional sizes can be met, they are indicated by [Taping Head] or [Machine Configuration]. Changing the taping head or machine configuration will allow for enhanced box height range indicated in the chart above. Please refer to the Instructions and Parts List or 3M representative for more detail.

\*Available with 3 in. taping head.

## 3M™ AccuGlide™ Taping Head Technology

### 3M taping heads for easy and accurate case sealing

3M™ AccuGlide™ Taping Heads are patented with a curvilinear design that applies tape securely with low impact that helps protect even lightweight cartons and contents.

#### 3M™ AccuGlide™ 3

Raising the speed limit to 100 ft. per minute for easy, consistent and accurate case sealing.



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# 3M™ Aerosol Products

## Convenience and a fistful of work power for maintenance and production

In thousands of factories and plants, these aerosol products are proven daily to save time and effort in maintenance and production. Bonding, lubricating, cleaning, inhibiting rust, and other tough jobs become finger-touch easy.

Compact container fits in a tool box to go readily to any job site and can help you reduce storage space and cost. With targeted application you get more usable product for your money.

3M aerosol chemicals contain no methylene chloride, chlorofluorocarbons (CFCs) or 1,1,1-trichloroethane (methyl chloroform).



With 3M™ Super 77™ Multipurpose Spray Adhesive, you have fast tack, long bonding range, and little or no soak-in for bonding many lightweight materials including papers, labels, plastics, foils, foam, insulation, fabric, cardboard, and light gauge metal.



For fast, easy cleanup of gears, 3M™ Citrus Base Cleaner helps soften and loosen grease, oil and grime. After using this heavy-duty degreaser/cleaner, just wipe away with a shop towel.



3M™ Silicone Spray Low VOC 60% lubricates cutting tools and tables. Fast, easy application helps prevent buildup of adhesive, wax, inks and paints. Won't stain or become gummy.

## 3M™ Aerosol Products

| Product                               | Key Characteristics  | Available Format              | Color       | Application Method | Spray Pattern | VOC Content |
|---------------------------------------|--|-------------------------------|-------------|--------------------|---------------|-------------|
| <b>Aerosol Adhesives</b>              |  |                               |             |                    |               |             |
| Super 77™                             | Low soak-in for long lasting bond. High coverage and aggressive tack. Bonds quickly in 15 seconds.                             | Aerosol                       | Clear       | Spray              | Mist          | 54%         |
|                                       |  | 5 gallon, 52 gallon           | Clear       | Brush/Roll/Spray   | Mist          | 504g/L      |
|                                       |  | Large Cylinder                | Clear       | Spray              | Mist          | 535g/L      |
| Super 77™ CA Multi-Purpose (Low VOC)  | Aggressive tack. Quick bonding. Long bonding range. Meets CARB/OTC VOC Requirements. Helps contribute to LEED® credits.        | Aerosol                       | Clear       | Spray              | Mist          | <25%        |
| Multi-Purpose 27                      | Fast tack. Lightweight applications.   | Aerosol                       | Clear       | Spray              | Mist          | 59%         |
| <b>Aerosol Chemicals</b>              |  |                               |             |                    |               |             |
| Adhesive Remover                      | Citrus based. Fast acting. No residue left behind.   | 1 gallon, 5 gallon, 52 gallon | Pale Yellow | Brush/Roll/Spray   | Mist          | 840g/L      |
|                                       |  | 5 oz. Aerosol                 | Pale Yellow | Spray              | Mist          | 100%        |
|                                       |  | 18.5 oz. Aerosol              | Pale Yellow | Spray              | Mist          | 100%        |
|                                       |  | Mini Cylinder                 | Pale Yellow | Spray              | Mist          | 800g/L      |
| Adhesive Remover — Low VOC <20% Clear | Extended dwell time. No residual film. Meets CARB/OTC VOC Requirements. Helps contribute to LEED® credits.                     | Aerosol                       | Clear       | Spray              | Mist          | 15%         |
| Citrus Base Cleaner                   | Citrus based. Non-corrosive. Cleans oil, grease, tar and grime.  | Aerosol                       | Transparent | Spray              | Mist          | 91%         |
| Silicone Spray 60% VOC                | Excellent lubricant. Fast drying. Long lasting and non-staining.   | Aerosol                       | Clear       | Spray              | Mist          | 60%         |
| 5-Way Penetrant                       | Drives out moisture. Frees rusted bolts. Inhibits rust — lubricates, demoisturizes, inhibits corrosion, cleans and penetrates. | Aerosol                       | Amber       | Spray              | Mist          | 30%         |
| Silicone Lubricant                    | Excellent lubricant. Fast Drying. Long-lasting and non-staining.   | Aerosol                       | Clear       | Spray              | Mist          | 95%         |

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

# 3M™ Duct Tapes

## Dependability and versatility for bundling, sealing, reinforcing and more

This family of rugged duct tapes adheres to most surfaces for applications ranging from bundling to moisture proofing, sealing to splicing, reinforcing to hanging poly drapes. Features include:

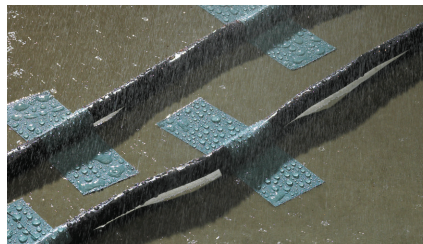
- Hand tearable
- High tensile strength
- Conformability



3M™ Duct Tapes are available in a variety of colors for color coding. A range of widths provides choices in coverage from 24mm to 22 inches.



For a tight seal in many containment situations, 3M™ Performance Plus Duct Tape 8979 attaches heavy poly draping, closes cuffs, and then removes cleanly when the job is finished.



Waterproof backing of 3M™ Performance Plus Duct Tape 8979 resists moisture and rain for up to a year.



For bundling a wide variety of items, 3M™ Duct Tapes with natural rubber adhesive and high tensile strength backings adhere on contact and hold securely. Write on the tape surface with pen or marker to leave a reminder or mark and identify works-in-progress, components, items bundled and more.

## 3M™ Duct Tapes

| Product Number                       | Color  | Adhesive Type    | Backing Material              | Thickness mils (mm) | Adhesion to Steel oz/in (N/100 mm) | Tensile Strength lb/in (N/100mm) | Elongation at Break % | Maximum Operating Temperature °F (°C) | Meets Specifications | Comments  |
|--------------------------------------|--|------------------|-------------------------------|---------------------|------------------------------------|----------------------------------|-----------------------|---------------------------------------|----------------------|---|
| Based on ASTM Test Method:           |  |                  |                               | D-3652              | D-3330                             | D-3759                           | D-3759                |                                       |                      |   |
| <b>Clean Removal Duct Tapes</b>      |  |                  |                               |                     |                                    |                                  |                       |                                       |                      |   |
| 8979                                 | Blue, Black, Olive                             | Rubber           | Polyethylene Over Cloth Scrim | 12.1 (0.31)         | 48 (53)                            | 36 (630)                         | 19                    | 200 (93)                              | UL 723/ASTM E84      | Up to six months clean removal from most opaque surfaces indoors and outdoors.  |
| <b>Professional Grade Duct Tapes</b> |  |                  |                               |                     |                                    |                                  |                       |                                       |                      |   |
| 3900                                 | Black, Blue, Olive, Red, Silver, White, Yellow | Rubber           | Polyethylene Over Cloth Scrim | 7.6 (0.19)          | 53 (58)                            | 28 (490)                         | 19                    | 200 (93)                              | —                    | General purpose duct tape, temporary repairs, color-coding.   |
| 3939                                 | Silver   | Rubber           | Polyethylene Over Cloth Scrim | 8.6 (0.22)          | 58 (63)                            | 27 (472)                         | 17                    | 200 (93)                              | UL 723/ASTM E84      | Use for demanding duct tape applications.   |
| DT11                                 | Silver, Black                                  | Natural Rubber   | Polyethylene Over Cloth Scrim | 11.0 (0.27)         | 58 (63.4)                          | 35 (613)                         | 12                    | 200 (93)                              | —                    | Provides easy tear and good conformability. Great for holding, sealing and packaging.   |
| DT17                                 | Black  | Natural Rubber   | Polyethylene Over Cloth Scrim | 17.0 (0.43)         | 69 (75.5)                          | 41 (718)                         | 13                    | 150 (65)                              | —                    | Provides easy tear and good conformability. Great for seaming applications, repair bottom boards and protecting various surfaces. |
| <b>Utility Duct Tapes</b>            |  |                  |                               |                     |                                    |                                  |                       |                                       |                      |   |
| DT8                                  | Silver   | Synthetic Rubber | Polyethylene Over Cloth Scrim | 8.0 (0.20)          | 100 (109.4)                        | 31 (542)                         | 21                    | 200 (93)                              | —                    | Provides easy tear and good conformability. Great for sticking to metal, glass, plastic and sealed concrete.                      |
| 2929                                 | Silver   | Rubber           | Polyethylene Over Cloth Scrim | 5.5 (0.14)          | 45 (49)                            | 19 (333)                         | 14                    | 200 (93)                              | —                    | Utility grade duct tape for temporary repairs, sealing, holding and marking.  |

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

# 3M™ Masking Tapes — Crepe Paper

## Holding power and removal the way you want

In this simplified line, you will find a range of such characteristics as adhesive holding power, line sharpness, and clean removal to meet different application requirements for virtually every industrial and consumer application. 3M products also feature:



Instant adhesion at a touch

- Easy tear without stretching or pulling
- Controlled unwind...not too easy or too hard
- Conformability to stretch and adhere around curves



Use 3M™ Value Masking Tape 101+ for light-duty attaching.



Use 3M™ General Masking Tape 201+ to quickly bundle parts.



3M™ Performance Yellow Masking Tape 301+ is ideal for labeling and identifying applications.

## 3M™ Masking Tapes — Crepe Paper

| Product Number                  | Color  | Adhesive Type           | Backing Material                                   | Total Thickness mils (mm) | Adhesion to Steel oz./in. (N/100 mm) | Tensile Strength lb./in. (N/100 mm) | Elongation at Break % | Maximum Operating Temperature °F (°C) | Time at Maximum Temperature (minutes) | Can be Certified to Specification | Industrial Cross Reference | Comments   |
|---------------------------------|--------|-------------------------|--|---------------------------|--------------------------------------|-------------------------------------|-----------------------|---------------------------------------|---------------------------------------|-----------------------------------|----------------------------|--|
| <b>ASTM Test Method:</b>        |        |                         |  | D-3652                    | D-3330                               | D-3759                              | D-3759                |                                       |                                       |                                   |                            |  |
| <b>Industrial Masking Tapes</b> |        |                         |  |                           |                                      |                                     |                       |                                       |                                       |                                   |                            |  |
| 101+                            | Tan    | Rubber                  | Crepe Paper  | 5.1 (0.13)                | 34 (37)                              | 22 (385)                            | 9                     | 150 (66)                              | 30                                    | —                                 | 2214                       | Indoor use. Light-duty applications.   |
| 201+                            | Tan    | Solvent-Free Rubber     | Crepe Paper  | 4.4 (0.11)                | 25 (27)                              | 19 (333)                            | 8                     | 200 (93)                              | 30                                    | —                                 | 200, 203                   | General indoor use. Light-to-medium duty. Clean removal.   |
| 301+                            | Yellow | Solvent-Free Rubber     | Crepe Paper  | 6.3 (0.16)                | 30 (33)                              | 22 (385)                            | 12                    | 225 (107)                             | 30                                    | —                                 | 2307, 2308                 | Good conformability to irregular surfaces. Good paint lines.   |
| 401+                            | Green  | Solvent-Free Rubber     | Crepe Paper  | 6.7 (0.17)                | 36 (39)                              | 25 (438)                            | 10                    | 250 (121)                             | 30                                    | —                                 | —                          | Highly conformable to many surfaces. Superior adhesion to metal, rubber, glass and plastic. Great paint lines.   |
| 501+                            | Purple | High Temperature Rubber | Crepe Paper Treated with a Heat Resistant Saturant | 7.3 (0.185)               | 37 (40)                              | 31 (543)                            | 11                    | 300 (149)                             | 30                                    | —                                 | 231, 2693                  | Exceptionally conformable to irregular surfaces. Superior adhesion to metal, rubber, glass and plastic. Removes cleanly in one piece with no residue. Great paint lines. |

Note: The 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.

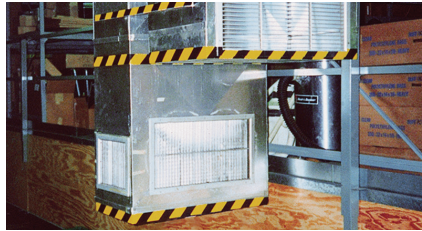
- “Color throughout” construction resists scrapes, wear, weathering and chemicals
- Wide variety of colors plus transparent
- Flexible backing with aggressive adhesive bonds, conforms and seals even on irregular surfaces
- Removes cleanly without leaving adhesive behind to clean up
- Stretches to mold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



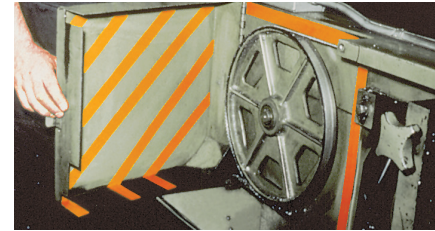
3M™ Vinyl Tapes clearly mark lanes, corridors and hazardous or no-go areas in factories, warehouses and hospitals. Durable vinyl backing resists abrasion, scuffing, moisture, weathering, acids and alkaline chemicals for long service life.



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



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.



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

## 3M™ Vinyl Tapes

| Product Number                         | Color        | Adhesive Type | Backing Material | Backing Thickness mils (mm) | Total Thickness mils (mm) | Adhesion to Steel oz./in. (N/100 mm) | Tensile Strength lb./in. (N/100 mm) | Elongation at Break % | Temperature Range °F (°C) | Comments   |
|--|--------------|---------------|------------------|-----------------------------|---------------------------|--------------------------------------|-------------------------------------|-----------------------|---------------------------|--|
| <b>Premium Performance Vinyl Tapes</b> |              |               |                  |                             |                           |                                      |                                     |                       |                           |  |
| 471                                    | Various      | Rubber        | Vinyl            | 4.1 (0.10)                  | 5.2 (0.13)                | 26 (28)                              | 14 (270)                            | 150                   | 40 to 170 (4 to 77)       | Conformable and clean removal. Black, Blue, Brown, Green, Orange, Purple, Red, Transparent, White, Yellow. MIL-STD 2041D (SH). |
| 4712                                   | Various      | Rubber        | Vinyl            | 4.1 (0.10)                  | 5.2 (0.13)                | 23 (25)                              | 14 (270)                            | 150                   | 40 to 170 (4 to 77)       | Lined version of 471 tape. MIL-STD 2041D (SH). Colors same as 471.   |
| 471+                                   | Indigo       | Rubber        | Vinyl            | 4.1 (0.10)                  | 5.3 (0.13)                | 35 (38.3)                            | 13.9 (243)                          | 191                   | Up to 250 (Up to 121)     | Superior conformability, sharp paint lines, clean removal.   |
| 472                                    | Black        | Rubber        | Vinyl            | 9.0 (0.23)                  | 10.4 (0.26)               | 23 (25)                              | 32 (560)                            | 270                   | Up to 225 (Up to 107)     | Abrasion and high temperature resistant.   |
| 477                                    | Transparent  | Rubber        | Vinyl            | 6.0 (0.15)                  | 7.2 (0.18)                | 24 (26)                              | 24 (420)                            | 230                   | 40 to 170 (4 to 77)       | Abrasion resistant.  |
| <b>General Purpose Vinyl Tapes</b>     |              |               |                  |                             |                           |                                      |                                     |                       |                           |  |
| 764                                    | Various      | Rubber        | Vinyl            | 4.1 (0.10)                  | 5.0 (0.13)                | 18 (21)                              | 13 (228)                            | 180                   | 60 to 85 (15 to 27)       | Non-critical applications. Black, Blue, Brown, Gray, Green, Orange, Purple, Red, Transparent, White, Yellow.                   |
| <b>Safety Stripe Tapes</b>             |              |               |                  |                             |                           |                                      |                                     |                       |                           |  |
| 5700                                   | Black/White  | Rubber        | Vinyl            | 4.2 (0.11)                  | 5.5 (0.14)                | 19 (21)                              | 15 (260)                            | 170                   | 40 to 170 (4 to 77)       | Critical applications. Adhesive side printing for long-life.   |
| 5702                                   | Black/Yellow | Rubber        | Vinyl            | 4.2 (0.11)                  | 5.5 (0.14)                | 19 (21)                              | 15 (260)                            | 170                   | 40 to 170 (4 to 77)       | Critical applications. Adhesive side printing for long-life.   |
| 766                                    | Black/Yellow | Rubber        | Vinyl            | 4.1 (0.10)                  | 5.0 (0.13)                | 18 (21)                              | 13 (228)                            | 180                   | 60 to 85 (15 to 27)       | Non-critical marking applications.   |
| 767                                    | Red/White    | Rubber        | Vinyl            | 4.1 (0.10)                  | 5.0 (0.13)                | 18 (21)                              | 13 (228)                            | 180                   | 60 to 85 (15 to 27)       | Non-critical marking applications.   |

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

## 3M™ Scotch-Weld™ Threadlockers

3M™ Scotch-Weld™ Threadlockers offer a range of products including temporary, permanent and high temperature resistance. These adhesives conform to most industry recognized standards for torque and strength.



| Product Number | Color  | Key Features  | Typical Viscosity (cps) | Temperature Range °F (°C) | Time to Handling | Full Cure |
|----------------|--------|---|-------------------------|---------------------------|------------------|-----------|
| TL22           | Purple | Screwlock. Low removal torque fasteners less than a 1/4" (6mm).                       | 1,200                   | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |
| TL42           | Blue   | Nutlock. Medium strength. General purpose.  | 1,200                   | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |
| TL43           | Blue   | Oil tolerant. Medium strength. General purpose.                                       | 3,300                   | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |
| TL62           | Red    | Studlock. High strength with controlled torque tension.                               | 1,600                   | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |
| TL71           | Red    | Permanent studlock for bolts and studs up to 1" (25mm).                               | 500                     | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |
| TL72           | Red    | High temperature studlock with gap filling for larger diameter coarse threaded parts. | 7,000                   | -65 to 450 (-54 to 232)   | < 20 minutes     | 24 hours  |
| TL77           | Red    | Heavy duty permanent for fasteners up to 1.5" (38mm) with coarse threads.             | 7,000                   | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |
| TL90           | Green  | Penetrating adhesive for pre-assembled fasteners and porosity sealing of welds.       | 20                      | -65 to 300 (-54 to 149)   | < 20 minutes     | 24 hours  |

## 3M™ Concrete Repair Products

**Fast, convenient crack and spall repair, expansion joints, custom threading and anchoring, and more**

Repairs are long lasting with strong, flexible bonds that resist weathering, expansion and contraction.

Fast setting allows you and your customers to drive on repaired surfaces in as few as five minutes. You can choose non-sag or self-leveling formulations for repairs on both vertical and horizontal surfaces. Non-sag formulation facilitates step and ledge repair.



50mL and 400mL duo-pak cartridges are available to meet your production volume requirements. Nozzle automatically and precisely meters, mixes, and dispenses two-part urethane formulation. Apply material precisely where needed to conserve material.

| Product                                | Size        | Description   | Work Life  | Initial Cure | Full Cure |
|--|-------------|---|------------|--------------|-----------|
| DP600 Gray Self-Leveling               | 400mL       | Repair of cracks or spalls and setting anchors in floors or horizontal surfaces.                              | 70 seconds | 5 minutes    | 1 hour    |
| DP600 Gray Non-Sag                     | 400mL       | Repair of cracks in walls and setting anchors in vertical surface. Repair chipped or broken steps and ledges. | 50 seconds | 4 minutes    | 1 hour    |
| Concrete Repair 600 Gray Self-Leveling | 8.4 fl. oz. | Flows smoothly into cleaned cracks and gaps. Hardens in as little as 5 minutes. Use in common caulking guns.  | 70 seconds | 5 minutes    | 1 hour    |
| DP5106 Gray                            | 400mL       | Helps relieve stress in large segments of concrete floors.  | 4 minutes  | 40 minutes   | 24 hour   |
| Manual Dispenser 98073                 | 400mL       | Heavy-duty applicator.  | n/a        | n/a          | n/a       |

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

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