

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

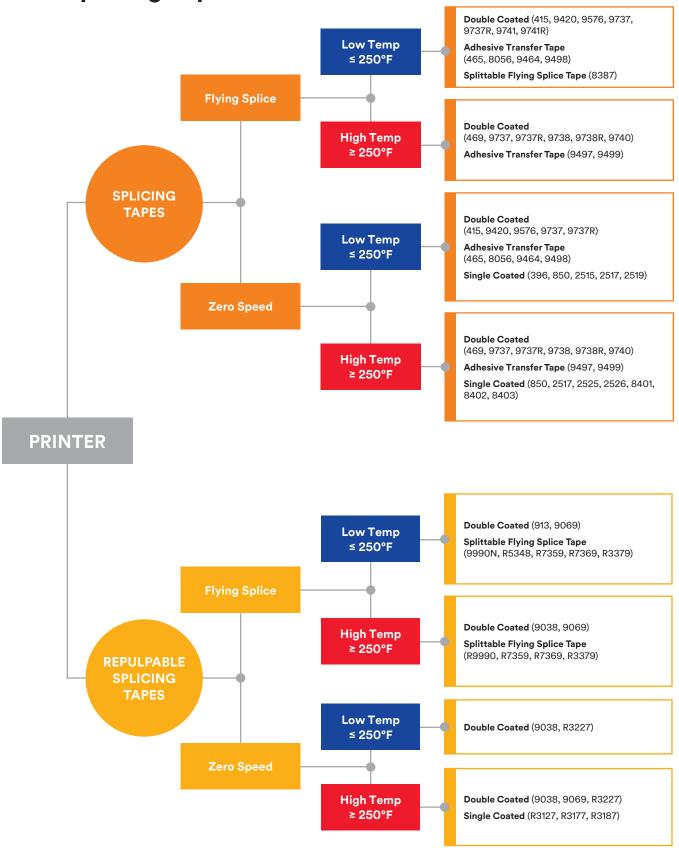
When you need to splice webs, reduce plate damage or improve print quality, you can rely on 3M to provide you with the right solutions.

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.



## **3M<sup>™</sup> 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<sup>™</sup> 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)

|                     |  | Tape<br>Thickness             | С                      | arrier              |               |                                | Heat                                   | Go<br>Applio  | -To<br>cation    |
|---------------------|--|-------------------------------|------------------------|---------------------|---------------|--------------------------------|--|---------------|------------------|
| Product<br>Number   | Product Description  | mils (mm)<br>without<br>liner | Thickness<br>mils (mm) | Туре                | Color         | Adhesion<br>oz/in<br>(N/25 mm) | Resistance*<br>(Short-term)<br>°F (°C) | Zero<br>Speed | Flying<br>Splice |
| Based on AST        | M Test Method  | D-3652                        | D-3652                 |                     |               | D-3330                         |  |               |                  |
| Adhesive Tran       | sfer Tape  |                               |                        |                     |               |                                |  |               |                  |
| 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/<br>Red | 20 (6.0)                       | 250 (121)                              | •             |                  |
| 9499/9497           | High temperature splicing  | 2.0 (0.05)                    | _                      | None                | Clear/<br>Red | 45 (12.5)                      | 350 (177)                              | •             |                  |
| <b>Double Coate</b> | d Tapes  |                               |                        |                     |               |                                |  |               |                  |
| 415/9420            | High tack adhesion to paper and many other surfaces  | 4.0 (0.10)                    | 0.5 (0.01)             | Polyester           | Clear/<br>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<br>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/<br>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/<br>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<br>Tissue | Clear/<br>Red | 60 (16.7)                      | 300 (150)                              | •             | -                |
| 9740                | High performance over a wide range of<br>temperatures, high peel, tack, and shear<br>properties, performance grade splicing<br>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/<br>Red | 120 (34.0)                     | 200 (93)                               |               |                  |

<sup>\*</sup>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.

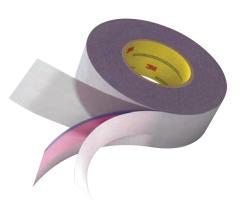
## 3M™ Splicing Tapes (cont.)

#### 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<br>Number | Adhesive                 | Backing | Liner                     | Color                                      | Tape Thickness<br>Mils (mm) | Liner Thickness<br>Mils (mm) | Post — Split Tape Thickness<br>Mils (mm)    |
|-------------------|--------------------------|---------|---------------------------|--|-----------------------------|------------------------------|---|
| 8387              | Differential<br>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<sup>™</sup> 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<br>Number | Color                | Adhesive<br>Type             | Backing<br>Material | Backing<br>Thickness<br>mils (mm) | Total<br>Thickness<br>mils (mm) | Adhesion to<br>Steel oz/in<br>(N/100 mm) | Tensile<br>Strength lb/in<br>(N/100 mm) | Elongation<br>at Break % | Temperature<br>Range<br>°F (°C) | Comments   |
|-------------------|----------------------|------------------------------|---------------------|-----------------------------------|---------------------------------|--|---|--------------------------|---------------------------------|--|
| Based or          | ASTM Test I          | Method:                      |                     | D-3652                            | D-3652                          | D-3330                                   | D-3759                                  | D-3759                   |                                 |  |
| General           | Industrial Tap       | es                           |                     |                                   |                                 |  |   |                          |                                 |  |
| 850               | Various              | Acrylic                      | Polyester           | 0.9 (0.02)                        | 1.9 (0.05)                      | 30 (33)                                  | 28 (491)                                | 120                      | -60 to 300<br>(-50 to 150)      | Splicing, holding,<br>sealing. Transparent,<br>Red, Black, White.                |
| High Ten          | nperature Ma         | sking and                    | Liner Splici        | ng Tapes                          |                                 |  |   |                          |                                 |  |
| 8401              | Translucent<br>Cream | Silicone/<br>Rubber<br>Blend | Polyester           | 1.0 (0.03)                        | 1.9 (0.05)                      | 22 (24)                                  | 34 (595)                                | 100                      | -60 to 300<br>(-50 to 150)      | Splicing many release coated paper.  |
| 8402              | Translucent<br>Green | Silicone                     | Polyester           | 0.9 (0.02)                        | 1.9 (0.05)                      | 24 (26)                                  | 25 (438)                                | 100                      | -60 to 425<br>(-50 to 218)      | Adheres well to silicone.  |
| 8403/<br>8403L    | Translucent<br>Green | Silicone                     | Polyester           | 1.4 (0.04)                        | 2.4 (0.06)                      | 27 (29)                                  | 46 (806)                                | 150                      | -60 to 425<br>(-50 to 218)      | Adheres well to silicone.<br>8403L is linered version.                           |
| 8991/<br>8991L    | Blue                 | Silicone                     | Polyester           | 1.0 (0.03)                        | 2.4 (0.06)                      | 31 (34)                                  | 29 (508)                                | 100                      | -60 to 400<br>(-50 to 204)      | Economical, thin tape.<br>Adheres well to silicone.<br>8991L is linered version. |
| 8992/<br>8992L    | Green                | Silicone                     | Polyester           | 2.0 (0.05)                        | 3.2 (0.08)                      | 44 (48)                                  | 57 (998)                                | 148                      | -60 to 400<br>(-50 to 204)      | Economical tape.<br>Adheres well to silicone.<br>8992L is linered version.       |
| Reflectiv         | re Tapes             |                              |                     |                                   |                                 |  |   |                          |                                 |  |
| 850               | Silver               | Acrylic                      | Polyester           | 0.9 (0.02)                        | 1.9 (0.05)                      | 42 (46)                                  | 28 (491)                                | 120                      | -60 to 300<br>(-50 to 150)      | Splicing, holding, sealing, decorating, metal detecting.                         |

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

<sup>\*3</sup>M brand.

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

## 3M™ Repulpable Splicing Tapes

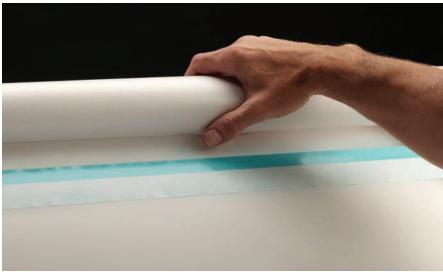
#### 3M™ Repulpable Splicing Tapes for the Printing Industry

From core starting to roll closing/ tabbing and all the splices in between, this line of repulpable tapes offers choices for the depentability 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<sup>™</sup> 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.

|                   |                        |   | Tape                                    | Tape S                | tructure   | L     | iner                   | Heat                           |                               |
|-------------------|------------------------|---|---|-----------------------|------------|-------|------------------------|--------------------------------|-------------------------------|
| Product<br>Number | Color                  | Comments  | Thickness<br>mils (mm)<br>without liner | Backing/<br>Carrier   | Adhesive   | Туре  | Thickness<br>mils (mm) | Heat<br>Resistance*<br>°F (°C) | FDA<br>Compliant <sup>†</sup> |
| Splittable        | Flying Sp              | lice (SFS)  |   |                       |            |       |                        |                                |                               |
| 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<br>metalized layer for auto-sensing splice<br>detection applications                                     | 5.5 (0.14)                              | Aluminized<br>Paper** | Repulpable | Paper | 2.2 (.05)              | 350 (180)                      | _                             |
| Repulpabl         | le Single C            | Coated  |   |                       |            |       |                        |                                |                               |
| R3127             | Blue/<br>White/        | General purpose, excellent holding power  | 4.5 (0.11)                              | Paper                 | Repulpable | _     | None                   | 400 (200)                      | Yes                           |
| R3187             | 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                           |
| Repulpabl         | le Double              | Coated  |   |                       |            |       |                        |                                |                               |
| 913               | Blue                   | Paster tape for splices at newspaper printers   | 3.5 (0.09)                              | Tissue<br>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<br>Carrier     | Repulpable | Paper | 3.2 (0.08)             | 350 (180)                      | Yes                           |
| 9069              | Blue                   | Excellent for newsprint or directory stock  | 3.5 (0.09)                              | Tissue<br>Carrier     | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                      | _                             |
| R3227             | Blue/<br>White         | For zero speed splicing   | 3.5 (0.09)                              | Tissue<br>Carrier     | Repulpable | Paper | 3.2 (0.08)             | 400 (200)                      | Yes                           |

<sup>\*</sup>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.

<sup>\*\*</sup>Non-repulpable, screenable aluminized sensor strip.

<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).

## 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<sup>™</sup> PTFE Tapes**

| Product<br>Number | Color     | Adhesive<br>Type | Backing<br>Material | Backing<br>Thickness<br>mils (mm) | Total<br>Thickness<br>mils (mm) | Adhesion to<br>Steel oz/in<br>(N/100 mm) | Tensile<br>Strength lb/in<br>(N/100 mm) | Elongation<br>at Break % | Temperature<br>Range °F (°C) | Comments                         |
|-------------------|-----------|------------------|---------------------|-----------------------------------|---------------------------------|--|---|--------------------------|------------------------------|----------------------------------|
| Based on A        | ASTM Test | Method:          |                     | D-3652                            | D-3652                          | D-3330                                   | D-3759                                  | D-3759                   |                              |                                  |
| Skived File       | m         |                  |                     |                                   |                                 |  |   |                          |                              |                                  |
| 5480              | Gray      | Silicone         | PTFE                | 2.0 (0.05)                        | 3.7 (0.09)                      | 20 (22)                                  | 26 (461)                                | 140                      | -65 to 500<br>(-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<br>(-54 to 260)   | Heavy-duty roller wrapping tape. |
| Extruded          | Film      |                  |                     |                                   |                                 |  |   |                          |                              |                                  |
| 5490              | Gray      | Silicone         | PTFE                | 2.0 (0.05)                        | 3.7 (0.09)                      | 27 (30)                                  | 17 (304)                                | 170                      | -65 to 500<br>(-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<br>(-54 to 260)   | Lay-flat backing.                |

## **3M<sup>™</sup> Graphics Arts Tapes (cont.)**

#### **3M™ UHMW-PE Tapes**

| Product<br>Number | Color       | Adhesive<br>Type | Backing<br>Material | Backing<br>Thickness<br>mils (mm) | Liner<br>Type                   | Total<br>Thickness<br>mils<br>(mm) | Adhesion to<br>Steel oz/in<br>(N/100 mm) | Tensile<br>Strength<br>Ib/in<br>(N/100 mm) | Elongation<br>at Break % | Temperature<br>Range °F (°C) | Comments   |
|-------------------|-------------|------------------|---------------------|-----------------------------------|---------------------------------|------------------------------------|--|--|--------------------------|------------------------------|--|
| Based on          | ASTM Test M | lethod:          |                     | D-3652                            |                                 | D-3652                             | D-3330                                   | D-3759                                     | D-3759                   |                              |  |
| 5421              | Translucent | Rubber           | UHMW-<br>PE         | 5.0 (0.13)                        | 60#<br>Densified<br>Kraft Paper | 6.7 (0.17)                         | 34 (37)                                  | 46 (796)                                   | 470                      | -30 to 225<br>(-34 to 107)   | General purpose<br>tape to protect<br>plastic and metal<br>chutes, guide rails<br>and containers<br>from wear. |
| 5423              | Translucent | Rubber           | UHMW-<br>PE         | 10.0 (0.25)                       | 60#<br>Densified<br>Kraft Paper | 12 (0.30)                          | 36 (39)                                  | 86 (1500)                                  | 530                      | -30 to 225<br>(-34 to 107)   | Excellent abrasion resistance to protect plastic and metal chutes, guide rails and containers from wear.       |
| 5425              | Translucent | Acrylic          | UHMW-<br>PE         | 3.0 (0.08)                        | 55#<br>Densified<br>Kraft Paper | 5.1 (0.13)                         | 48 (53)                                  | 25 (444)                                   | 390                      | -30 to 225<br>(-34 to 107)   | Solvent resistant<br>adhesive with<br>low coefficient<br>of friction and<br>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<sup>™</sup> 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<br>Number | Color     | Adhesive<br>Type | Backing<br>Material                  | Backing<br>Thickness<br>mils (mm) | Liner<br>Type      | Total<br>Thickness<br>mils (mm) | Adhesion to<br>Steel oz./in.<br>(N/100 mm) | Tensile<br>Strength<br>Ib./in.<br>(N/100 mm) | Elongation<br>at Break % | Temperature<br>Range °F (°C) | Comments                                   |
|-------------------|-----------|------------------|--------------------------------------|-----------------------------------|--------------------|---------------------------------|--|--|--------------------------|------------------------------|--|
| ASTM Tes          | t Method  |                  |                                      | D-3652                            |                    | D-3652                          | D-3330                                     | D-3759                                       | D-3759                   |                              |  |
| Graphic A         | rts Tapes |                  |                                      |                                   |                    |                                 |  |  |                          |                              |  |
| 235               | Black     | Rubber           | Crepe<br>Paper                       | 5.0 (0.12)                        | _                  | 7.0 (0.17)                      | 23 (25)                                    | 22 (386)                                     | 9                        | Up to 200<br>(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<br>(Up to 49)      | Lithographers tape.                        |
| 3051              | White     | Acrylic          | Flatback<br>Paper                    | 3.4 (0.09)                        | _                  | 3.8 (0.10)                      | 4 (4)                                      | 39 (680)                                     | 2                        | Up to 150<br>(Up to 65)      | Very low tack.                             |
| Traction T        | apes      |                  |                                      |                                   |                    |                                 |  |  | ·                        |                              |  |
| 5401              | Tan       | Silicone         | Fiberglass<br>Reinforced<br>Silicone | 8.0 (0.20)                        | _                  | 9.3 (0.24)                      | 12 (13)                                    | 220 (3853)                                   | 7                        | Up to 300<br>(Up to 148)     | High coefficient of friction for traction. |
| 5461              | White     | Rubber           | Silicone<br>Rubber                   | 7.8 (0.19)                        | Silicone-<br>Paper | 9.1 (0.23)                      | 30 (33)                                    | 85 (1500)                                    | 165                      | Up to 200<br>(Up to 93)      | High friction roller tape.                 |

## 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

|                   | Tape<br>Thickness      |   | Tempe<br>Resist  |                  |                       | Rela<br>Adhe |             |  | Adhesive<br>Transfer |
|-------------------|------------------------|---|------------------|------------------|-----------------------|--------------|-------------|--|----------------------|
| Product<br>Number | w/o Liner<br>mils (mm) | Description   | Minutes<br>Hours | Days<br>Weeks    | Solvent<br>Resistance | HSE          | LSE         | Application Ideas  | Tape<br>Equivalent   |
| 300 (High         | Tack Acryl             | ic)   |                  |                  |                       |              |             |  |                      |
| 976               | 2 (0.05)               | High tack. Excellent  |                  |                  |                       |              |             | Attach fabric swatches in sample books.  | 927                  |
| 969               | 5 (0.13)               | adhesion to most plastics.  | 250°F<br>(121°C) | 150°F<br>(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                  |
| 350 (High         | Performan              | ce Acrylic)   |                  |                  |                       |              |             |  |                      |
| 926               | 5 (0.13)               | High performance.<br>Excellent temperature<br>and solvent resistance. | 450°F<br>(232°C) | 300°F<br>(149°C) | High                  | High         | High        | Bond fabric or trim to window blinds. Splice aluminum coils. Bond foam insulation. Mount nameplates on award plaques.                | F9485PC              |
| 400 (Gen          | eral Purpos            | e Adhesive)   |                  |                  |                       |              |             |  |                      |
| 924               | 2 (0.05)               | General purpose.  | 250°F            | 180°F            | Med                   | Med          | Low         | Seal pocket in folders. Bond mat board in picture frames. Splice paper, films, foils.  | 465                  |
| 987*              | 1.7 (0.040)            | to most paper stocks.   | (121°C)          | (82°C)           | ivieu                 | ivieu        | Low         | General purpose bindery attaching.   | 9498                 |
| 400/1000          | ) (Repositio           | nable Adhesive)   |                  |                  |                       |              |             |  |                      |
| 928               | 2 (0.05)               | Differential tack.<br>Repositionable.                                 | 180°F<br>(82°C)  | 150°F<br>(65°C)  | Med                   | High/<br>Low | Low/<br>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

## **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<sup>™</sup> Extended Liner Tapes are available with a release liner wider than the adhesive. This provides an easy-to-grab edge for convenient liner removal.



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.



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.



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

|                     | Tape<br>Thickness |  |  |                  | erature<br>tance |                       |          | ative<br>esion |  |
|---------------------|-------------------|--|--|------------------|------------------|-----------------------|----------|----------------|--|
| Product             | w/o liner         | Liner                                      | Danasinkias  | Minutes          | Days<br>Weeks    | Solvent<br>Resistance | HSE      | LCE            | Application Ideas  |
| Number              | mils (mm)         | Туре                                       | Description  | Hours            | vveeks           | Resistance            | ПЭЕ      | LSE            | Application Ideas  |
| 340<br>466XL        | 2 (0.05)          | 62# DK White<br>with Black Print           | High tack;<br>Permanent  | 180°F<br>(82°C)  | 150°F<br>(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.  |
| 400                 |                   |  |  |                  |                  |                       |          |                |  |
| 465XL               | 2 (0.05)          | 60# DK Tan<br>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<br>Kraft White<br>w/o Print | General purpose  | 250°F<br>(121°C) | 180°F<br>(82°C)  | Med                   | Med      | Low            | Pharmaceutical outsert attachment. For applications requiring a more tear resistant liner.   |
| 450XL               | 1 (0.025)         | 60# DK Tan<br>with Green Print             |  |                  |                  |                       |          |                | Pharmaceutical outsert attachment. General paper attachment.   |
| 920XL               | 1 (0.025)         | 40# DK White<br>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<br>with Red Print             | General purpose  | 180°F<br>(82°C)  | 150°F<br>(65°C)  | Med                   | Med      | Low            | Economical alternative for general paper-to-paper applications.  |
| 600                 |                   |  |  |                  |                  |                       |          |                |  |
| 9934XL              | 4 (0.10)          | 60# DK tan<br>without Print                | High tack to LSE materials   | 150°F<br>(65°C)  | 120°F<br>49°C)   | Med                   | High     | High           | P.O.P. displays. Difficult splicing applications, shelf talkers, price tags, polyethylene foam bonding. Indirect food-contact applications. High tack to LSE materials.  |
| 760                 |                   |  |  |                  |                  |                       |          |                |  |
| 476XL               | 6 (0.16)          | 62# DK White<br>with Red Print             | High tack, double coated film  | 150°F<br>(65°C)  | 120°F<br>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>  |
| 770                 |                   |  |  |                  |                  |                       |          |                |  |
| 9925XL <sup>2</sup> | 2.5 (0.065)       | 43# DK White<br>with Black Print           | Tissue reinforced;<br>High initial<br>adhesion to a wide<br>variety of materials | 150°F<br>(65°C)  | 100°F<br>41°C)   | Low                   | Med      | Med            | General mounting. P.O.P. items. Attaching tags and labels. Core starting. Permanent bonding paper-topaper, business forms, traffic tickets, novelty items and literature. Indirect food-contact applications. <sup>1</sup> |
| 1 FDA acce          | antahla dry i     | naredients listed                          | as indirect food-con   | tact addit       | ivec             | 2 Non-line            | r cida i | c adhac        | ive coated full width.   |

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

Relative Adhesion: HSE - High Surface Energy; LSE - Low Surface Energy

<sup>2.</sup> Non-liner side is adhesive coated full width.

## 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<br>Number<br>ASTM Tes | Backing<br>Material<br>st Method | Adhesive<br>Type | Tensile<br>Strength lb/in<br>(N/100 mm)<br>D-3759 | Total<br>Thickness<br>mils (mm)<br>D-3652 | Adhesion<br>Strength oz/in<br>(N/100 mm)<br>D-3330 | Elongation<br>at Break (%)<br>D-3759 | Color       | Comments   |
|-------------------------------|----------------------------------|------------------|---|---|--|--------------------------------------|-------------|--|
| 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.<br>Performance edge and hole reinforcing. |
| 8412                          | Polyester                        | Acrylic          | 120 (2100)  | 6.3 (0.16)                                | 42 (46)  | 130                                  | Transparent | Release surface and liner splicing tape.<br>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.

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

## 3M™ Splicing and Repulpable Tapes

## Tapes for paper mills and converters

From core starting to roll closing/ tabbing and all the splices inbetween, 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<sup>™</sup> 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.



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



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



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.

## 3M<sup>™</sup> Splicing and Repulpable Tapes (cont.)

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

|            |                          |  |                   | Toma Car             |            |       | Ltono              |                    |                        |
|------------|--------------------------|--|-------------------|----------------------|------------|-------|--------------------|--------------------|------------------------|
| Product    |                          |  | Tape<br>Thickness | Tape Str<br>Backing/ | ucture     |       | Liner<br>Thickness | Heat<br>Resistance | FDA                    |
| Number     | Color                    | Comments   | mils (mm)         | Carrier              | Adhesive   | Туре  | mils (mm)          | °F (°C)            | Compliant <sup>†</sup> |
|            | nt Double C              |  |                   |                      |            |       |                    |                    |                        |
| 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                    |
| Permanen   | nt Single Co             | ated   |                   |                      |            |       |                    |                    |                        |
| 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                    |
| Temporar   | ry Double C              | oated  |                   |                      |            |       |                    |                    |                        |
| 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                    |
| Temporar   | ry Single Co             | pated  |                   |                      |            |       |                    |                    |                        |
| 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                    |
| Splittable | Flying Spli              | ce (SFS)   |                   |                      |            |       |                    |                    |                        |
| 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).

<sup>\*</sup>Food Contact Notification issued by FDA.

## 3M<sup>™</sup> Splicing Aids

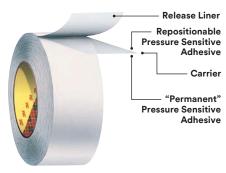
# Technology for knife cut signaling, core starting and more

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

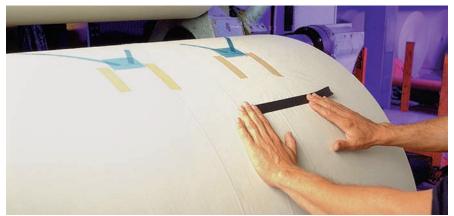
For example, black crepe paper tape conforms to the roll and signals the knife cut during the splicing process.

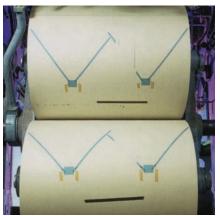
For reusing cores, double coated removable/repositionable tape features a permanent adhesive on one side of a carrier that bonds permanently to the core. Adhesive strength on the other side of the carrier holds paper and film with enough strength for reliable wind-up but easy release when unwinding.





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<sup>™</sup> Crepe Masking Tape 2510 or the 7.0 mil thick 3M<sup>™</sup> Photographic Light Blocking Tape 235. With conformable backing and rubber adhesive, both tapes hold securely at full operating speeds.

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

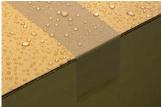
## Scotch® and Tartan™ Box Sealing Tapes

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

## **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 |
| Hand-Held | Box Sealing Tape Dispensers  |                |
| 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           |
| Table Top | Dispensers   |                |
| 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.          |
|           |  |                |

#### 3M-Matic<sup>™</sup> 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.



#### 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.

#### **Random Case Sealers**

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



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.

|  |  |        | Box S   | ize Cap       | acity (ir | nches) |                | ]                        |                        |                   | Belt-Drive      |                        |                                   |
|--|--|--------|---------|---------------|-----------|--------|----------------|--------------------------|------------------------|-------------------|-----------------|------------------------|-----------------------------------|
|  | Drive  | -      | Minimu  | m             | N         | 1aximu | m              | Power Requ               | iirements              | Operating<br>Rate | Speed<br>ft/min |                        |                                   |
| Machine  | System   | L      | W       | Н             | L         | W      | н              | Electrical               | Air                    | (cs/min)          | (m/s)           | Taping Head            | Comments                          |
| Adjustable Case Sealer — Bottom Belt Drive Systems         |  |        |         |               |           |        |                |                          |                        |                   |                 |                        |                                   |
| 200a   | Bottom   | 6.0    | 6.5     | 4.5<br>[3.75] | N/L       | 21.5   | 24.5<br>[28.5] | 115VAC 60Hz<br>1.9A 220W | No Air                 | Up to 40          | 100 (0,5)       | 2"<br>3M™ AccuGlide™ 3 | Semi-Automatic<br>Adjustable.     |
| Adjustable Case Sealer — Top and Bottom Belt Drive Systems |  |        |         |               |           |        |                |                          |                        |                   |                 |                        |                                   |
| 7000a<br>Pro   | Top and<br>Bottom                                      | 6.0    | 6.5     | 2.0           | N/L       | 26.5   | 28.0           | 115VAC 60Hz<br>3.8A 440W | No Air                 | Up to 40          | 100 (0,5)       | 2"<br>3M™ AccuGlide™ 3 |                                   |
| Adjustable   | e Case Se  | aler — | Side Be | It Drive      | System    | ıs     |                |                          |                        |                   |                 |                        | Extended size                     |
| 8000a  | Side   | 6.0    | 4.5     | 3.75          | N/L       | 21.5   | 27.25          | 115VAC 60Hz<br>3.8A 440W | No Air                 | Up to 40          | 100 (0,5)       | 2"<br>3M™ AccuGlide™ 3 | capabilities are possible, please |
| Random C   | Random Case Sealer — Top and Bottom Belt Drive Systems |        |         |               |           |        |                |                          |                        |                   |                 |                        | contact 3M.                       |
| 7000r<br>Pro   | Top and<br>Bottom                                      | 6.0    | 6.5     | 2.25          | N/L       | 26.5   | 26.0           | 115VAC 60Hz<br>3.8A 440W | 3.75 SCFM<br>@ 85 PSIG | Up to 24          | 100 (0,5)       | 2"<br>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.

## 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<sup>™</sup> AccuGlide<sup>™</sup> 3

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



<sup>\*</sup>Available with 3 in. taping head.

#### 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-trichlorethane (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<sup>™</sup> 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<sup>™</sup> Aerosol Products

| Product  | Key Characteristics   | Available<br>Format              | Color       | Application<br>Method   | Spray<br>Pattern | VOC<br>Content |
|--|---|----------------------------------|-------------|-------------------------|------------------|----------------|
| Aerosol Adhesives                                      |   |                                  | •           |                         |                  |                |
|  |   | Aerosol                          | Clear       | Spray                   | Mist             | 54%            |
| Super 77™  | Low soak-in for long lasting bond. High coverage and aggressive tack. Bonds quickly in 15 seconds.  5 gallon, 52 gallon Clear Spray |                                  | Mist        | 504g/L                  |                  |                |
|  | ,   | Large Cylinder                   | Clear       | Spray                   | Mist             | 535g/L         |
| Super 77 <sup>™</sup> CA<br>Multi-Purpose<br>(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%            |
| Aerosol Chemicals                                      |   |                                  |             |                         |                  |                |
|  |   | 1 gallon, 5 gallon,<br>52 gallon | Pale Yellow | Spray Pale Yellow Spray |                  | 840g/L         |
| Adhesive Remover                                       | Citrus based. Fast acting. No residue left behind.  | 5 oz. Aerosol                    | Pale Yellow |                         |                  | 100%           |
|  | No residue iert benind.   | 18.5 oz. Aerosol                 | Pale Yellow | Spray                   | Mist             | 100%           |
|  |   | Mini Cylinder                    | Pale Yellow | Spray                   | Mist             | 800g/L         |
| Adhesive Remover —<br>Low VOC <20% Clear               | Extended dwell time. No residual film.<br>Meets CARB/OTC VOC Requirements.<br>Helps contribute to LEED® credits.                    | Aerosol                          | Clear       | Spray                   | Mist             | 15%            |
| Citrus Base Cleaner                                    | Citrus based. Non-corrosive.<br>Cleans oil, grease, tar and grime.  | Aerosol                          | Transparent | Spray                   | Mist             | 91%            |
| Silicone Spray<br>60% VOC                              | Excellent lubricant. Fast drying.<br>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.<br>Long-lasting and non-staining.   | Aerosol                          | Clear       | Spray                   | Mist             | 95%            |

### **3M<sup>™</sup> 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<sup>™</sup> 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<sup>™</sup> Duct Tapes**

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

## 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<sup>™</sup> Value Masking Tape 101+ for light-duty attaching.



Use 3M<sup>™</sup> 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<br>Number | Color                | Adhesive<br>Type              | Backing<br>Material  | Total Thickness<br>mils (mm) | Adhesion to Steel<br>oz/in (N/100 mm) | Tensile Strength<br>Ib/in (N/100 mm) | Elongation at<br>Break % | Maximum<br>Operating<br>Temperature<br>°F(°C) | Time at<br>Maximum<br>Temperature<br>(minutes) | Can be Certified<br>to Specification | Industrial<br>Cross Reference | Comments   |
|-------------------|----------------------|-------------------------------|--|------------------------------|---------------------------------------|--------------------------------------|--------------------------|---|--|--------------------------------------|-------------------------------|--|
| ASTM Tes          | t Method             | :                             |  | D-3652                       | D-3330                                | D-3759                               | D-3759                   |   |  |                                      |                               |  |
| Industrial        | Masking <sup>*</sup> | Tapes                         |  |                              |                                       |                                      |                          |   |  |                                      |                               |  |
| 101+              | Tan                  | Rubber                        | Crepe<br>Paper   | 5.1<br>(0.13)                | 34<br>(37)                            | 22<br>(385)                          | 9                        | 150<br>(66)                                   | 30   | _                                    | 2214                          | Indoor use. Light-duty applications.   |
| 201+              | Tan                  | Solvent-Free<br>Rubber        | Crepe<br>Paper   | 4.4<br>(0.11)                | 25<br>(27)                            | 19<br>(333)                          | 8                        | 200<br>(93)                                   | 30   | _                                    | 200,<br>203                   | General indoor use. Light-to-<br>medium duty. Clean removal.   |
| 301+              | Yellow               | Solvent-Free<br>Rubber        | Crepe<br>Paper   | 6.3<br>(0.16)                | 30<br>(33)                            | 22<br>(385)                          | 12                       | 225<br>(107)                                  | 30   | _                                    | 2307,<br>2308                 | Good conformability to irregular surfaces. Good paint lines.   |
| 401+              | Green                | Solvent-Free<br>Rubber        | Crepe<br>Paper   | 6.7<br>(0.17)                | 36<br>(39)                            | 25<br>(438)                          | 10                       | 250<br>(121)                                  | 30   | _                                    | _                             | Highly conformable to many<br>surfaces. Superior adhesion<br>to metal, rubber, glass and<br>plastic. Great paint lines.  |
| 501+              | Purple               | High<br>Temperature<br>Rubber | Crepe Paper<br>Treated<br>with a Heat<br>Resistant<br>Saturant | 7.3<br>(0.185)               | 37<br>(40)                            | 31<br>(543)                          | 11                       | 300<br>(149)                                  | 30   | _                                    | 231,<br>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. |

## 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<sup>™</sup> 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<sup>™</sup> Vinyl Tape identifies dangerous machine parts that may cause injury when enclosure doors are open or guards removed.

#### **3M<sup>™</sup> Vinyl Tapes**

| Product<br>Number | Color            | Adhesive<br>Type | Backing<br>Material | Backing<br>Thickness<br>mils (mm) | Total<br>Thickness<br>mils (mm) | Adhesion<br>to Steel<br>oz./in.<br>(N/100<br>mm) | Tensile<br>Strength<br>Ib./in.<br>(N/100<br>mm) | Elongation at Break % | Temperature<br>Range °F (°C) | Comments   |
|-------------------|------------------|------------------|---------------------|-----------------------------------|---------------------------------|--|---|-----------------------|------------------------------|--|
| Premium           | Performance      | Vinyl Tapes      | <u> </u>            |                                   |                                 |  |   |                       |                              |  |
| 471               | Various          | Rubber           | Vinyl               | 4.1 (0.10)                        | 5.2 (0.13)                      | 26 (28)  | 14 (270)  | 150                   | 40 to 170<br>(4 to 77)       | Conformable and clean<br>removal. Black, Blue, Brown,<br>Green, Orange, Purple, Red,<br>Transparent, White, Yellow.<br>MIL-STD 2041D (SH). |
| 4712              | Various          | Rubber           | Vinyl               | 4.1 (0.10)                        | 5.2 (0.13)                      | 23 (25)  | 14 (270)  | 150                   | 40 to 170<br>(4 to 77)       | Linered version of 471 tape.<br>MIL-STD 2041D (SH).<br>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<br>(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<br>(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<br>(4 to 77)       | Abrasion resistant.  |
| General P         | urpose Vinyl     | Tapes            |                     |                                   |                                 |  |   |                       |                              |  |
| 764               | Various          | Rubber           | Vinyl               | 4.1 (0.10)                        | 5.0 (0.13)                      | 18 (21)  | 13 (228)  | 180                   | 60 to 85<br>(15 to 27)       | Non-critical applications.<br>Black, Blue, Brown, Gray,<br>Green, Orange, Purple, Red,<br>Transparent, White, Yellow.                      |
| Safety Str        | ripe Tapes       |                  |                     |                                   |                                 |  |   |                       |                              |  |
| 5700              | Black/<br>White  | Rubber           | Vinyl               | 4.2 (0.11)                        | 5.5 (0.14)                      | 19 (21)  | 15 (260)  | 170                   | 40 to 170<br>(4 to 77)       | Critical applications. Adhesive side printing for long-life.   |
| 5702              | Black/<br>Yellow | Rubber           | Vinyl               | 4.2 (0.11)                        | 5.5 (0.14)                      | 19 (21)  | 15 (260)  | 170                   | 40 to 170<br>(4 to 77)       | Critical applications. Adhesive side printing for long-life.   |
| 766               | Black/<br>Yellow | Rubber           | Vinyl               | 4.1 (0.10)                        | 5.0 (0.13)                      | 18 (21)  | 13 (228)  | 180                   | 60 to 85<br>(15 to 27)       | Non-critical marking applications.   |
| 767               | Red/<br>White    | Rubber           | Vinyl               | 4.1 (0.10)                        | 5.0 (0.13)                      | 18 (21)  | 13 (228)  | 180                   | 60 to 85<br>(15 to 27)       | Non-critical marking applications.   |

### 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<br>Number | Color  | Key Features  | Typical<br>Viscosity (cps) | Temperature<br>Range °F (°C) | Time to<br>Handling | Full Cure |
|-------------------|--------|---|----------------------------|------------------------------|---------------------|-----------|
| TL22              | Purple | Screwlock. Low removal torque fasteners less than a 1/4" (6mm).                       | 1,200                      | -65 to 300<br>(-54 to 149)   | < 20 minutes        | 24 hours  |
| TL42              | Blue   | Nutlock. Medium strength. General purpose.  | 1,200                      | -65 to 300<br>(-54 to 149)   | < 20 minutes        | 24 hours  |
| TL43              | Blue   | Oil tolerant. Medium strength. General purpose.                                       | 3,300                      | -65 to 300<br>(-54 to 149)   | < 20 minutes        | 24 hours  |
| TL62              | Red    | Studlock. High strength with controlled torque tension.                               | 1,600                      | -65 to 300<br>(-54 to 149)   | < 20 minutes        | 24 hours  |
| TL71              | Red    | Permanent studlock for bolts and studs up to 1" (25mm).                               | 500                        | -65 to 300<br>(-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<br>(-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<br>(-54 to 149)   | < 20 minutes        | 24 hours  |
| TL90              | Green  | Penetrating adhesive for pre-assembled fasteners and porosity sealing of welds.       | 20                         | -65 to 300<br>(-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.<br>Repair chipped or broken steps and ledges. | 50 seconds | 4 minutes    | 1 hour    |
| Concrete Repair 600 Gray<br>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       |