

# 3M™ Protective Tapes — Short Term Protection

## Key Customer Markets

- ◆ Metalworking and Steel
- ◆ Graphics
- ◆ Appliances
- ◆ Aerospace
- ◆ Automotive
- ◆ Furniture
- ◆ Marine
- ◆ Recreational Vehicles

## Carpet Tapes\*

- Good transparency
- Easy unwind

## Cold Seal®<sup>1</sup> Films\*

- Clear film that seals to itself
- Ideal for packaging small parts
- Tamper proof packaging

## Co-Extruded "A" Tapes\* — the best choice in a 3M™ Protective Tape

- Excellent conformability
- Enhanced abrasion and puncture resistance
- Good heat resistance

## Co-Extruded Black/White Tapes\*

- Enhanced outdoor UV resistance for up to one year

## Polyester Tapes\*

- Best optical clarity
- Excellent heat resistance
- Excellent puncture resistance

## Polypropylene Tapes\*

- Good abrasion resistance
- Good heat resistance
- Good outdoor UV resistance

## PRODUCT INFORMATION

| Product                       | Tape Structure (Backing/Adhesive) | Total Thickness (mils (mm)) | Adhesion to Steel (oz./in. width) | Tack Level (VL (very low) L (low) M (moderate) H (high) VH (very high)) | Elongation at Break (%) | Application Ideas  |
|-------------------------------|-----------------------------------|-----------------------------|-----------------------------------|---|-------------------------|--|
| Based on ASTM Test Method:    |                                   | D-3652                      | D-3330                            | D-3759  |                         |  |
| Nominal Results               |                                   |                             |                                   |   |                         |  |
| <b>CARPET TAPES*</b>          |                                   |                             |                                   |   |                         |  |
| 2E79                          | Polyethylene/Acrylic              | 2 (0.05)                    | 20                                | H   | 600                     | Automotive carpeted areas, fabric seals and headliners.                                    |
| 2E93EZ                        | Polyethylene/Acrylic              | 3 (0.08)                    | 25                                | VH  | 600                     | Automotive carpets, fabric seals and headliners.   |
| 2E95EZ                        | Polyethylene/Acrylic              | 3 (0.08)                    | 35                                | VH  | 600                     | Automotive carpets, fabric seals and headliners.   |
| 2L93EZ                        | Polyethylene/Acrylic              | 3 (0.08)                    | 28                                | VH  | 600                     | Residential carpet tape.   |
| 2L95EZ                        | Polyethylene/Acrylic              | 3 (0.08)                    | 35                                | VH  | 600                     | Higher adhesion for treated carpet.  |
| <b>COLD SEAL® FILMS*</b>      |                                   |                             |                                   |   |                         |  |
| 3130                          | Polyethylene/Rubber               | 3 (0.08)                    | 14**                              | n/a   | 450                     | Cohesive film used to package small machine parts, hand tools and literature.              |
| 4130                          | Polyethylene/Rubber               | 4 (0.10)                    | 12**                              | n/a   | 450                     | Cohesive film used to package small machine parts, hand tools and literature.              |
| 5130                          | Polyethylene/Rubber               | 5 (0.13)                    | 11**                              | n/a   | 450                     | Cohesive film used to package small machine parts, hand tools and literature.              |
| <b>CO-EXTRUDED "A" TAPES*</b> |                                   |                             |                                   |   |                         |  |
| 2A04                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 1                                 | VL  | 600                     | High-gloss coated metals. Glass. CRT screens.  |
| 2A05                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 2                                 | VL  | 600                     | High-gloss plastic laminates. Mirror and glass products.                                   |
| 2A10                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 2                                 | VL  | 600                     | Gloss decorative laminates. Smooth acrylic sheet & film.                                   |
| 2A12                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 4                                 | L   | 600                     | Painted, gloss finish architectural building panels. Extruded, painted urethane moldings.  |
| 2A25                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 6                                 | M   | 600                     | Painted building panels. Automotive moldings and urethane fascias.                         |
| 2A26                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 9                                 | M   | 600                     | Painted, embossed, metal building panels, canopies and molded fiberglass.                  |
| 2A29                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 10                                | M   | 600                     | Brushed aluminum. Textured, plastic automotive moldings.                                   |
| 2A87                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 14                                | H   | 600                     | Matte decorative and vinyl laminates.  |
| 2A88                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 15                                | H   | 600                     | Matte decorative and vinyl laminates. Matte, plastic screen-printed nameplates.            |
| 2A89                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 15                                | H   | 600                     | Matte decorative and vinyl laminates. Matte, plastic screen-printed nameplates.            |
| 5A29                          | Co-Extruded/Acrylic               | 2 (0.05)                    | 10                                | M   | 600                     | Brushed aluminum and textured plastics.  |
| 25A10                         | Co-Extruded/Acrylic               | 3 (0.08)                    | 2                                 | VL  | 600                     | Specular anodized aluminum. Bright annealed or polished stainless.                         |
| 25A12                         | Co-Extruded/Acrylic               | 3 (0.08)                    | 3                                 | L   | 600                     | Smooth, gloss painted building panels. Premask for vinyl pinstripping, decals and emblems. |
| 25A25                         | Co-Extruded/Acrylic               | 2 (0.05)                    | 7                                 | M   | 600                     | Semi-gloss painted metals and plastic surfaces. Automotive moldings.                       |
| 25A26                         | Co-Extruded/Acrylic               | 2 (0.05)                    | 9                                 | M   | 600                     | Embossed, painted metal building panels. Molded fiberglass.                                |
| 25A29                         | Co-Extruded/Acrylic               | 3 (0.08)                    | 9                                 | M   | 600                     | Most rough finished stainless steel and aluminum sheets and coils.                         |
| 25A87                         | Co-Extruded/Acrylic               | 3 (0.08)                    | 13                                | H   | 600                     | Brushed aluminum and stainless. Hand applied to cultured marble (typically dusty surface). |
| 25A88                         | Co-Extruded/Acrylic               | 3 (0.08)                    | 15                                | H   | 600                     | Matte high pressure laminates.   |
| 25A89                         | Co-Extruded/Acrylic               | 3 (0.08)                    | 15                                | H   | 600                     | Matte high pressure laminates.   |

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

\* PolyMask Corporation is a joint venture of 3M Company and Sealed Air Corporation, and marketed and sold by 3M. Registered trademark of Sealed Air Corporation.

\*\* Value measured as a cohesive bond strength in units.

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

## PRODUCT INFORMATION

| Product                               | Tape Structure (Backing/Adhesive) | Total Thickness mils (mm) | Adhesion to Steel oz./in. width | Tack Level VL (very low)<br>L (low)<br>M (moderate)<br>H (high)<br>VH (very high) | Elongation at Break % | Application Ideas  |
|---------------------------------------|-----------------------------------|---------------------------|---------------------------------|---|-----------------------|--|
| Based on ASTM Test Method:            |                                   | D-3652                    | D-3330                          | D-3759  |                       |  |
| <b>Nominal Results</b>                |                                   |                           |                                 |   |                       |  |
| <b>CO-EXTRUDED BLACK/WHITE TAPES*</b> |                                   |                           |                                 |   |                       |  |
| 25M05X                                | Co-Extruded/Acrylic               | 3 (0.08)                  | 2                               | VL  | 600                   | High gloss polished steel and aluminum.  |
| 25M26X                                | Co-Extruded/Acrylic               | 3 (0.08)                  | 8                               | M   | 600                   | Most finished stainless steel and aluminum sheets and coils.   |
| 25M91X                                | Co-Extruded/Acrylic               | 3 (0.08)                  | —                               | —   | 600                   | UV resistant exterior textured automotive trim, textured fascias and other applications that require high-tack adhesion. |
| 3W25X                                 | Co-Extruded/Acrylic               | 3 (0.08)                  | 5                               | M   | 450                   | Most finished stainless steel and aluminum sheets and coils.   |
| 3W26X                                 | Co-Extruded/Acrylic               | 3 (0.08)                  | 7                               | M   | 450                   | Excellent UV resistance for use on finished stainless steel, aluminum, plastic and glass surfaces.                       |
| 3W29X                                 | Co-Extruded/Acrylic               | 3 (0.08)                  | 8                               | M   | 450                   | Most finished stainless steel and aluminum sheets and coils.   |
| 3W55X                                 | Co-Extruded/Acrylic               | 3 (0.08)                  | 9                               | M   | 450                   | Painted metal, plastic and glass surfaces.   |
| 3W93X                                 | Co-Extruded/Acrylic               | 3 (0.08)                  | 28                              | VH  | 450                   | Very textured stainless steel and aluminum.  |
| <b>POLYESTER TAPES*</b>               |                                   |                           |                                 |   |                       |  |
| 1614                                  | Polyester/Acrylic                 | 1 (0.03)                  | 2                               | VL  | 88                    | High pressure laminates. Name plates, instrument panels, clock faces and cell phone windows                              |
| 1675                                  | Polyester/Acrylic                 | 1 (0.03)                  | 2                               | VL  | 88                    | High pressure laminates. Name plates and instrument panels.  |
| <b>POLYPROPYLENE TAPES*</b>           |                                   |                           |                                 |   |                       |  |
| 24S56W                                | Polypropylene/Acrylic             | 3 (0.08)                  | 9                               | M   | 700                   | White tape for painted metals, plastic surfaces and automotive clearcoat paint finishes.                                 |
| 64S58W                                | Polypropylene/Acrylic             | 6 (0.15)                  | 9                               | M   | 630                   | Use on base, clearcoat and high gloss painted surfaces. Ideal for mutilation protection.                                 |
| <b>OTHER PROTECTIVE TAPES</b>         |                                   |                           |                                 |   |                       |  |
| 335/Pink                              | Polyester/Rubber                  | 2 (0.05)                  | 2                               | VL  | 125                   | Low tack protective tape.  |
| 336/Transparent                       | Polyester/Rubber                  | 1 (0.03)                  | 1                               | VL  | 95                    | Low tack protective tape.  |
| 346/Tan                               | Flat Paper Stock/Rubber           | 17 (0.42)                 | 22                              | VH  | 4                     | Heavy duty protective tape.  |
| 9343/Black                            | Non-Woven/Acrylic                 | 16 (0.42)                 | 27                              | VH  | 300                   | Conformable NVH tape.  |

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### Metals

Fig.XXX

Protection of painted metal surfaces is important during stamping and shearing operations, as well as during transit and installation. To help prevent surface damage, 3M™ Protective Tape is applied to the metal coil after sheeting, prior to the door being formed.



### Metal Fabrication

Fig.XXX

Early on in the fabrication process, protective tape is laminated to raw webs of sheet metal in order to protect the metal from abrasion during bending, punching, stamping, shearing, and assembly operations.



### Temporary Carpet Protection

Fig.XXX

3M™ EZ Unwind Protective Carpet Tapes are the simple solution for temporary protection of carpeting including applications for automotive, RV, commercial and residential carpets. For marine and aerospace carpet applications, 3M offers a selection of fire retardant carpet tapes.



### Automotive Lights

Fig.XXX

3M™ Protective Tapes 3W26X and 25M26X have excellent UV properties while providing protection from abrasion and scratching during manufacturing, shipping and installation. These tapes offer excellent outdoor UV resistance for up to one year.



### Marble Sinks/Spas and Countertops

Fig.XXX

To help ensure a scratch free product, 2 mil Co-Extruded "A" Tapes or 3 mil tapes are applied after final finishing to the sink, spa, or countertop prior to packaging, shipping and installation.



### Light Switches and Door Kick Plates

Fig.XXX

3M™ Protective Tapes are an excellent choice to help protect surfaces, like switches and kick plates, from damage that can occur during production, transit and installation. **Screws and Small Parts:** Pieces can be packaged using Cold Seal® products to help keep small parts securely together and to prevent scratching of other items within the same package.

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3M offers a line of tapes to help protect your product from:

- Scratching
- Marring
- Chipping

We offer rugged 1–8 mil products for a multitude of applications that help prevent damage during:

- Production and assembly
- Packaging and shipping
- Installation

Our unique product features include:

- Superb UV resistance

- Excellent conformability
- Exceptional elongation strength
- Optimum abrasion resistance
- Easy and clean tape removal

## Polyethylene Tapes\*

- Better transparency
- Good abrasion resistance
- Cost effective

## UV Tapes\*

- Enhanced outdoor UV resistance
- Available in transparent and blue

## PRODUCT INFORMATION

| Product                    | Tape Structure<br>(Backing/Adhesive) | Total Thickness<br>mils (mm) | Adhesion<br>to Steel<br>oz./in. width | Tack Level<br>VL (very low)<br>L (low)<br>M (moderate)<br>H (high)<br>VH (very high) | Elongation<br>at Break<br>% | Application Ideas   |
|----------------------------|--------------------------------------|------------------------------|---------------------------------------|--|-----------------------------|---|
| Based on ASTM Test Method: |                                      | D-3652                       | D-3330                                | D-3759   |                             |   |
| <b>Nominal Results</b>     |                                      |                              |                                       |  |                             |   |
| <b>POLYETHYLENE TAPES*</b> |                                      |                              |                                       |  |                             |   |
| 2104                       | Polyethylene/Acrylic                 | 2 (0.05)                     | 1                                     | VL   | 450                         | Glass. CRT screens. LED, LCD screens.   |
| 2105                       | Polyethylene/Acrylic                 | 2 (0.05)                     | 2                                     | VL   | 450                         | Bright annealed or polished steel sheets and coils. Mirrors and glass products. LCD, CRT screens.   |
| 2110                       | Polyethylene/Acrylic                 | 2 (0.05)                     | 3                                     | L  | 450                         | Extruded, molded, plastic automotive trim. Gloss-finished decorative laminates.   |
| 2112                       | Polyethylene/Acrylic                 | 2 (0.05)                     | 4                                     | L  | 450                         | Painted gloss finish metal building panels. Premask for vinyl pinstriping and decals.   |
| 2125                       | Polyethylene/Acrylic                 | 2 (0.05)                     | 5                                     | M  | 450                         | Painted, embossed, architectural building panels. Semi-gloss laminates and acrylic sheets.  |
| 2126                       | Polyethylene/Acrylic                 | 2 (0.05)                     | 7                                     | M  | 450                         | Slightly textured plastics, steel garage doors, metal extrusions and painted building panels.   |
| 3104                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 1                                     | VL   | 450                         | High-gloss coated metals. CRT and LCD screens.  |
| 3105                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 2                                     | VL   | 450                         | Bright annealed or polished steel sheets and coils. Mirrors and glass products. Cell phones, windows, CRT and LCD screens.                                      |
| 3110                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 2                                     | VL   | 450                         | Bright annealed or polished stainless. Gloss, painted metals.   |
| 3112                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 3                                     | L  | 450                         | Smooth, gloss, painted building panels. Premask for vinyl pinstriping, decals and emblems.  |
| 3125                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 5                                     | M  | 450                         | Cut-to-length metal sheets in fabrication, shipping and storage. Semi-gloss, painted metals and plastic surfaces.   |
| 3126                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 7                                     | M  | 450                         | Embossed, painted, metal building panels. Mill-finished aluminum and stainless sheets or coils in fabrication and shipping.                                     |
| 3142                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 2                                     | VL   | 450                         | Satin finish painted metals, plastics.  |
| 3143                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 5                                     | M  | 450                         | Textured metals, plastics.  |
| 3173                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 4                                     | L  | 450                         | Premask for vinyl pinstriping, decals and lettering.  |
| 3179                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 20                                    | H  | 450                         | Non-skid fiberglass. Fabric seams and headliners. Auto ABS scuff plates.  |
| 3187                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 11                                    | H  | 450                         | Brushed aluminum and stainless. Hand applied to cultured marble (typically dusty surface).  |
| 3188                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 13                                    | H  | 450                         | Matte high-pressure laminates. Matte plastics.  |
| 3195                       | Polyethylene/Acrylic                 | 3 (0.08)                     | 35                                    | VH   | 450                         | Automotive carpets and treated carpet surfaces.   |
| 4112                       | Polyethylene/Acrylic                 | 4 (0.10)                     | 3                                     | L  | 450                         | Premask for vinyl decals and pinstriping. Polished stainless and specular finish anodized aluminum sheets and coils.  |
| 4125                       | Polyethylene/Acrylic                 | 4 (0.10)                     | 5                                     | M  | 450                         | Polished #3 and #4 finished stainless coils or sheets. Anodized and mill finish aluminum.   |
| 4126                       | Polyethylene/Acrylic                 | 4 (0.10)                     | 7                                     | M  | 450                         | Molded fiberglass or acrylic tubs and spas. Automotive applications such as: bumpers, fascias, body side molding paint protection, tail lights or window glass. |
| 4167                       | Polyethylene/Acrylic                 | 4 (0.10)                     | 18                                    | H  | 450                         | Textured decorative laminates and vinyl. Woodgrain laminates, matte plastics.   |
| 4179                       | Polyethylene/Acrylic                 | 4 (0.10)                     | 20                                    | H  | 450                         | Dissimilar metals. Automotive kick plates.  |

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| Product                            | Tape Structure<br>(Backing/Adhesive) | Total Thickness<br>mils (mm) | Adhesion to Steel<br>oz./in. width | Tack Level<br>VL (very low)<br>L (low)<br>M (moderate)<br>H (high)<br>VH (very high) | Elongation at Break<br>% | Application Ideas  |
|------------------------------------|--------------------------------------|------------------------------|------------------------------------|--|--------------------------|--|
| Based on ASTM Test Method:         |                                      | D-3652                       | D-3330                             | D-3759   |                          |  |
| Nominal Results                    |                                      |                              |                                    |  |                          |  |
| <b>POLYETHYLENE TAPES* (cont.)</b> |                                      |                              |                                    |  |                          |  |
| 4187                               | Polyethylene/Acrylic                 | 4 (0.10)                     | 13                                 | H  | 450                      | Cultured marble and molded fiberglass. Woodgrain vinyl decorative laminates.   |
| 4188                               | Polyethylene/Acrylic                 | 4 (0.10)                     | 15                                 | H  | 450                      | Brushed anodized aluminum. Matte plastics or high-pressure laminates.  |
| 4193EZ                             | Polyethylene/Acrylic                 | 4 (0.10)                     | 28                                 | VH   | 450                      | Dissimilar metals. Automotive carpeting, carpeted door panels, plastic scuffplates.  |
| 5112                               | Polyethylene/Acrylic                 | 5 (0.13)                     | 3                                  | L  | 450                      | Mirror-finish stainless, specular anodized aluminum. Automotive applications such as: paint mutilation, tail lights, lens covers and window glass. |
| 5125                               | Polyethylene/Acrylic                 | 5 (0.13)                     | 3                                  | L  | 450                      | Painted metal, gloss finish building panels. Coated metal automotive trim.   |
| 5126                               | Polyethylene/Acrylic                 | 5 (0.13)                     | 5                                  | M  | 450                      | Mill finish aluminum and stainless coils and sheets. Molded fiberglass, polyester tubs and showers.  |
| 5187                               | Polyethylene/Acrylic                 | 5 (0.13)                     | 10                                 | M  | 450                      | Cultured marble. Textured plastics. Matte painted metals.  |
| 5188                               | Polyethylene/Acrylic                 | 5 (0.13)                     | 15                                 | H  | 450                      | Cultured marble. Textured plastics. Matte painted metals.  |
| 8179                               | Polyethylene/Acrylic                 | 8 (0.21)                     | 15                                 | H  | 450                      | Dissimilar metals.   |
| <b>FIRE RETARDANT TAPES*</b>       |                                      |                              |                                    |  |                          |  |
| 4F79                               | Polyethylene/Acrylic                 | 4 (0.15)                     | 15                                 | H  | 600                      | Flame retardant carpet tape complies to F.A.R. 25.853 (appendix F, part 25).   |
| 4F92                               | Polyethylene/Acrylic                 | 4 (0.15)                     | 16                                 | H  | 450                      | Flame retardant carpet tape meets Annex 1 of the IMO FTP Code (part 2 and 5). Coast Guard approved number (164.112/29/0).                          |
| <b>MULTI-POLYMER TAPES*</b>        |                                      |                              |                                    |  |                          |  |
| 2H82C                              | Polyethylene/Acrylic                 | 2 (0.05)                     | —                                  | H  | —                        |  |
| <b>UV TAPES*</b>                   |                                      |                              |                                    |  |                          |  |
| 2AU23B/UV                          | Polyethylene/Acrylic                 | 2 (0.05)                     | 3                                  | L  | 600                      | UV resistant for polished stainless and glass.   |
| 2AU26B/UV                          | Polyethylene/Acrylic                 | 2 (0.05)                     | 7                                  | M  | 600                      | UV resistant for general stainless finishes, glass and plastic surfaces.   |
| 31U23C/UV                          | Polyethylene/Acrylic                 | 3 (0.08)                     | 3                                  | L  | 450                      | UV resistant for polished stainless and glass.   |
| 31U26C/UV                          | Polyethylene/Acrylic                 | 3 (0.08)                     | 7                                  | M  | 450                      | UV resistant for general stainless finishes and glass.   |

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**Cell Phones**

**Fig.XXX**

Co-Extruded "A" Tapes with transparent adhesive — such as 2A04 — protect LCD displays on cell phones from nicks and scratches that can interfere with readability.



**LCD Screens**

**Fig.XXX**

3M™ Protective Tapes like 3104 help protect critical surfaces that require protection against scratches and marring during manufacturing, packaging and shipping operations.



**Graphics**

**Fig.XXX**

3M™ Protective Tapes offer multiple choices for protection of printed graphics, such as nameplates and signage, from surface damage during manufacturing, transit and installation.



**Automotive Mirrors**

**Fig.XXX**

Many applications require a UV stable backing. 3M™ Protective Tapes 2AU23B/UV and 31U26C/UV are excellent choices for protecting mirror finishes from abrasion and marring. These tapes resist the affects of prolonged UV exposure for up to 3 months and new translucent color allows inspection of parts through tape.



**Refrigerator Compartments**

**Fig.XXX**

Plastic surfaces such as those on refrigerator dairy doors or vegetable crispers keep looking like new through the use of protective film tapes in transit.



**Appliances**

**Fig.XXX**

Plastic laminates with printed graphics, like those used on microwaves, avoid in-transit nicks and abrasion when covered by protective tapes that peel off easily and leave no residue.