

# 3M

## Polyester Film Tape

### 850

Technical Data

August, 2013

**Product Description** 3M™ Polyester Film Tape 850 can generally be used for splicing and applications where chemical resistance and/or clean removal is necessary. The silver backing is a transparent polyester with a thin layer of aluminum.

| Product Construction | Backing   | Adhesive | Color                                  | Standard Roll Length |
|----------------------|-----------|----------|----------------------------------------|----------------------|
|                      | Polyester | Acrylic  | Transparent, Red, Black, White, Silver | 72 yds. (65.8 m)     |

| Typical Physical Properties    | Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. |  |                  |
|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------|
|                                |                                                                                                                                                           |  | ASTM Test Method |
| Adhesion to Steel:             | 30 oz./in. width (33 N/100 mm)                                                                                                                            |  | D-3330           |
| Silver:                        | 42 oz./in. width (46 N/100 mm)                                                                                                                            |  | D-3330           |
| Tensile Strength at Break:     | 28 lbs./in. width (491 N/100 mm)                                                                                                                          |  | D-3759           |
| Elongation at Break:           | 120%                                                                                                                                                      |  | D-3759           |
| Backing Thickness:             | 0.9 mils (0.02 mm)                                                                                                                                        |  | D-3652           |
| Total Thickness:               | 1.9 mils (0.05 mm)                                                                                                                                        |  | D-3652           |
| Water Vapor Transmission Rate: | 1.6 gms, H <sub>2</sub> O/100 sq. in./24 hrs. (24.8 g/m <sup>2</sup> /24 hrs.)                                                                            |  | D-3833           |
|                                | Silver: 0.9 gms, H <sub>2</sub> O/100 sq. in./24 hrs. (7.75 g/m <sup>2</sup> /24 hrs.)                                                                    |  | D-3833           |
| Temperature Use Range:         | -60 - 300°F (-50 - 150°C)                                                                                                                                 |  |                  |

| Features |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|          | <ul style="list-style-type: none"> <li>• Prolonged exposure to sunlight or hot caustics will cause backing to become brittle and lose tensile strength.</li> <li>• Thin, high strength polyester film helps reduce failures due to breakage while meeting low caliper requirements.</li> <li>• Chemical and solvent resistance to help reduce rejects produced from chemical and solvent attack.</li> <li>• Abrasion resistant to help protect surfaces from abrasion and rough handling.</li> <li>• Variety of colors offered when easy detection is required.</li> </ul> |

# 3M™ Polyester Tape 850

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## Application Ideas

### Transparent, Red, Black, White:

- Splicing and web defect marking.
- Sealing, labeling, and protecting.
- Positive film striping (transparent).
- Decorative edging.
- Tape hinge.

### Silver:

- Post splicing movie film.
- Deflect flagging where reflective sensing is required.
- Decorative striping and die cutting.
- Decorative edging.

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## Storage

Store under normal conditions of 60° to 80°F (16° to 27°C) and 40 to 60% relative humidity in the original packaging material.

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## Shelf Life

To obtain best performance, use this product within 18 months from date of manufacture.

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## Technical Information

The technical information, recommendations and other statements contained in this document are based upon tests or experience that 3M believes are reliable, but the accuracy or completeness of such information is not guaranteed.

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## Product Use

Many factors beyond 3M's control and uniquely within user's knowledge and control can affect the use and performance of a 3M product in a particular application. Given the variety of factors that can affect the use and performance of a 3M product, user is solely responsible for evaluating the 3M product and determining whether it is fit for a particular purpose and suitable for user's method or application.

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**ISO 9002**

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This Industrial Adhesives and Tapes Division product was manufactured under a quality system registered to ISO 9001:2000 standards.



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