3M™ Polyester Tape 853

Product Description

3M™ Polyester Tape 853 is comprised of strong, thin polyester backing with high shear, solvent resistant acrylic adhesive. These qualities make this tape ideal for applications where solvent exposure is a concern. It produces a reliable bond to a wide variety of substrates. The overall thinness this tape makes it ideal for splicing.

Product Features

- Can be qualified to meet Federal Spec. L-T-100 Type I.
- Meets flammability requirements of FAR 25.853(a) Appendix F Part I (a)(1) (ii).
- Polyester backing provides strength without thickness.
- Transparent backing allows visibility of information protected by the tape.
- Acrylic adhesive is resistant to many solvents including jet engine fuel, hydraulic fluid, and lubricating oils.
- Tape has excellent shear holding.
- Versatile adhesive sticks to a wide variety of substrates.
- Printable on the adhesive side and by the “Print Seal” method on the backing side.
- Low moisture vapor transmission rate.
Technical Information Note

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

Typical Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Transparent</td>
<td></td>
</tr>
<tr>
<td>Total Tape Thickness</td>
<td>0.05 mm / 2.1 mil</td>
<td>ASTM D3652</td>
</tr>
<tr>
<td>Backing Thickness</td>
<td>0.02 mm / 0.9 mil</td>
<td>ASTM D3652</td>
</tr>
<tr>
<td>Backing</td>
<td>Polyester</td>
<td></td>
</tr>
<tr>
<td>Adhesive</td>
<td>Acrylic</td>
<td></td>
</tr>
<tr>
<td>Water Vapor Transmission Rate</td>
<td>15.4 g/m²/24 hr / 0.99 g/100 in²/24 hr</td>
<td>ASTM D3833</td>
</tr>
</tbody>
</table>

Typical Performance Characteristics

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
<th>Method</th>
<th>Substrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peel Adhesion</td>
<td>4.6 N/cm / 42 oz/in</td>
<td>ASTM D3330</td>
<td>Stainless Steel</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>42 N/cm / 384 oz/in</td>
<td>ASTM D3759</td>
<td></td>
</tr>
<tr>
<td>Elongation at Break</td>
<td>110 %</td>
<td>ASTM D3759</td>
<td></td>
</tr>
<tr>
<td>Temperature Use Range</td>
<td>-50 to 150 °C / -60 to 300 °F</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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Available Sizes

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Roll Length</td>
<td>65.8 m</td>
</tr>
</tbody>
</table>

Handling/Application Information

Application Ideas

- High tension splicing application.
- Critical label protection.
- Tape hinge.
- Aerospace applications that require FAR flammability rating.
- Sealing critical area from moisture intrusion.

Storage and Shelf Life

Store under normal conditions of 70°F (21°C) and 50% R.H. in the original carton.

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

Industry Specifications

Can be qualified to meet Federal Spec. L-T-100 Type I Federal Spec. L-T-100 Type I.
FAR 25.853(a) Appendix F Part I (a)(1)(ii).
U. S. Gov’t Commercial Item Description A-A-59298.

Trademarks

3M is a trademark of 3M Company.

References

1. 3m.com Product Page
   Url: http://www.3m.com/3M/en_US/company-us/all-3m-products/~/3M-Polyester-Film-Tape-853?N=5002385+3293241445&rt=rud
2. Safety Data Sheet
ISO Statement

This Industrial Adhesives and Tapes Division product was manufactured under a 3M quality system registered to ISO 9001 standards.

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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