3M™ High-Temperature Polyimide Film Tape 7413D

Product Description
3M™ High-Temperature Polyimide Tape 7413D consists of a polyimide film and silicone adhesive designed for solder masking and other very high-temperature applications.

3M tape 7413D is available in standard and custom widths and lengths. Standard length is 33 meters (36 yards). Contact your local 3M sales team to review custom width and length options.

Product Construction/Material Description

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Amber</td>
</tr>
<tr>
<td>Adhesive Type</td>
<td>Silicone</td>
</tr>
<tr>
<td>Backing Type</td>
<td>Polyimide film</td>
</tr>
</tbody>
</table>

Applications
- Mask for protection of gold fingers of printed circuit boards during wave solder, solder reflow or solder dip process
- Release surface in fabrication of parts cured at elevated temperatures

Typical Physical Properties and Performance Characteristics

Note: The following technical information and data should be considered representative or typical only and should not be used for specification purposes. Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA) that is shipped with the commercialized product.
### 3M™ High-Temperature Polyimide Film Tape 7413D

<table>
<thead>
<tr>
<th>Property</th>
<th>Method*</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion to steel</td>
<td>ASTM D-3330, Method A</td>
<td>25 oz./in. (28 N/100 mm)</td>
</tr>
<tr>
<td>Tensile strength at break</td>
<td>ASTM D-3759</td>
<td>25 lbs./in. (450 N/100 mm)</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>ASTM D-3759</td>
<td>40%</td>
</tr>
<tr>
<td>Backing thickness</td>
<td>ASTM D-3652</td>
<td>1.0 mil (0.025 mm)</td>
</tr>
<tr>
<td>Total tape thickness</td>
<td>ASTM D-3652</td>
<td>2.8 mil (0.070 mm)</td>
</tr>
<tr>
<td>Dielectric strength</td>
<td>ASTM D-149</td>
<td>6.0 kV</td>
</tr>
</tbody>
</table>

*Methods listed as ASTM are tested in accordance with the ASTM method noted.

### Storage and Shelf Life

The shelf life of 3M™ High-Temperature Polyimide Film Tape 7413D is 18 months from the date of manufacture when stored in the original packaging materials and stored at 21°C (70°F) and 50% relative humidity.

### Certificate of Analysis (COA)

The 3M Certificate of Analysis (COA) for this product is established when the product is commercially available from 3M. The commercially available product will have a COA specification established. The COA contains the 3M specifications and test methods for the products performance limits that the product will be supplied against. The 3M product is supplied to 3M COA test specifications and the COA test methods. Contact your local 3M representative for this product’s COA.

This technical data sheet may contain preliminary data and may not match the COA specification limits and/or test methods that may be used for COA purposes.

Final product specifications and testing methods will be outlined in the products Certificate of Analysis (COA) that is shipped with the commercialized product.
Regulatory: For regulatory information about this product, contact your 3M representative.

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