3M Advanced Materials Division

3M™ Dyneon™
Cure-in-Place Gasket CIPG 1951

Features and Benefits

- Provides excellent chemical resistance (except to amines, bases & polar organic solvents.)
- Helps create a barrier and extends fuel cell service life.
- Contains no silicones.
- Roll format enables automation & scaling resulting in improved productivity in gasket application.
- Has a smooth surface and lies flat for a level fuel stack.

Note: Data in this document are not for specification purposes.

Product Description

3M™ Dyneon™ Cure-in-Place Gasket CIPG 1951 consists of a PTFE film backing with a fluoroelastomer adhesive layer.

Product Form and Packaging

**Backing:** Extruded PTFE (polytetrafluoroethylene)

**Adhesive:** Fluoroelastomer

**Release liner:** Polyester, non-silicone liner

**Color:** Tan

**Standard Roll Dimensions:**
1.36 in (wide) × 36 yds (long)
(34.5 mm × 32.9 m)

**Shelf Life**

To maintain best performance, store product at recommended storage conditions and use product within 12 months from date of manufacture.

Typical Physical Properties (Not for specification purposes)

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adhesion to Steel</td>
<td>ASTM D3330</td>
<td>8 oz./in width (0.9 N/cm)</td>
</tr>
<tr>
<td>Tensile strength at break</td>
<td>ASTM D3759</td>
<td>40 lbs/in. width</td>
</tr>
<tr>
<td>Elongation at break</td>
<td>ASTM D3759</td>
<td>200%</td>
</tr>
<tr>
<td>PTFE backing thickness</td>
<td>ASTM D2652</td>
<td>5.0 mils (0.13 mm)</td>
</tr>
<tr>
<td>Total gasket thickness</td>
<td>ASTM D2652</td>
<td>7.5 mils (0.19 mm)</td>
</tr>
</tbody>
</table>

Storage

Rolls of Dyneon CIPG 1951 must be shipped and stored at temperatures of 35°–40°F (2°–4°C).

Safety and Toxicology

This is a fluoroplastic material, so normal precautions observed with fluoroplastics should be followed. Before processing this product, be sure to read and follow all precautions and directions for use contained in the product label and the Safety Data Sheet. General handling/processing precautions include:

1. Wear protective gloves when handling.
2. Wash thoroughly after handling.
For optimal sealing performance, the gasket needs to be cured after application to the substrate. Recommended curing conditions are noted in the chart below:

<table>
<thead>
<tr>
<th>Curing temperature (°C)</th>
<th>Curing time (min)</th>
</tr>
</thead>
<tbody>
<tr>
<td>90</td>
<td>107</td>
</tr>
<tr>
<td>110</td>
<td>9.7</td>
</tr>
<tr>
<td>130</td>
<td>1.2</td>
</tr>
<tr>
<td>150</td>
<td>0.2</td>
</tr>
</tbody>
</table>

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