235-300°F (113-150°C) Cure Epoxy Film Adhesive

Typical applications
- Aerospace
- Sporting goods
- Marine
- Wind energy
- Industrial

Out life
- 7 days at 70°F (21°C)

Shelf life
- 3 months at 40°F (4°C)
- 6 months at 0°F (-18°C)

Description
106 is a 235°F (113°C) to 300°F (150°C) cure, general purpose flame retardant epoxy film adhesive designed for bonding applications requiring high strengths from -67°F (-55°C) to 180°F (82°C).

Benefits/features
- Flame retardant
- Co-curable with most 250°F (120°C) curing prepregs
- FAR 25.853 Appendix F, Part I, (a)(1)(i) flammability requirements
- MMM-A-132B, Type I, Class 3, Group 3
- MIL-A-25463B, Type I, Class 1, Group 3

Variants
- 106-8: Self-adhesive

Application
106 is suited for structural and secondary bonding applications where flame retardant properties are required. Recommended for bonding substrates including, but not limited to, Nomex & aluminum honeycombs, metals, cured & uncured epoxy composites, balsa, and foams.

106 is supplied in standard film weights from 0.030 to 0.090 psf (150-450 gsm), either unsupported or on a variety of commercially available reinforcements, including:
- Non-woven polyester carrier (HC)
- Nylon mesh (N), and tricot (TR)
- Unsupported (U)
- Metal meshes for electrical management

Recommended processing conditions
106 can be cured at temperatures from 235°F (113°C) to 300°F (150°C), depending on part size and complexity. Low, medium, and high pressure molding techniques may be used for curing. Recommended cure cycle is 25psi (172kPa), 3°F (1.7°C)/min, ramp to 250°F (135°C), hold for 60 minutes, cool to <140°F (60°C).

Please contact your account manager or MCCFC technical support to discuss specific applications.
Neat resin (values are average and do not constitute a specification)

<table>
<thead>
<tr>
<th>Property</th>
<th>Measured value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gel time @ 275°F (135°C), minutes</td>
<td>3 – 5</td>
</tr>
<tr>
<td>Specific gravity</td>
<td>1.30</td>
</tr>
<tr>
<td>T&lt;sub&gt;g&lt;/sub&gt; (DMA, E'), °F (°C)</td>
<td>212 (100)</td>
</tr>
</tbody>
</table>

Mechanical data (values are average and do not constitute a specification)

NB106HC, 0.060 psf, preheated press 275°F, 1 hour, 25 psi

<table>
<thead>
<tr>
<th>Property</th>
<th>Test method</th>
<th>-67°F (-55°C)</th>
<th>RT</th>
<th>180°F (82°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lap shear strength, psi (MPa)*</td>
<td>ASTM D1002</td>
<td>3800 (26.2)</td>
<td>4400 (30.3)</td>
<td>3100 (21.3)</td>
</tr>
<tr>
<td>Flatwise tensile strength, psi (MPa)</td>
<td>ASTM C297</td>
<td>1200 (8.27)</td>
<td>1300 (8.96)</td>
<td>975 (6.72)</td>
</tr>
<tr>
<td>Flexural strength, lbs (kN)</td>
<td>ASTM C393</td>
<td>2800 (12.4)</td>
<td>2900 (12.9)</td>
<td>2400 (10.6)</td>
</tr>
<tr>
<td>CD peel strength, in-lbs/in (Nm/m)**</td>
<td>ASTM D1781</td>
<td>-</td>
<td>14 (62)</td>
<td>-</td>
</tr>
</tbody>
</table>

*MIL-A-25463B, Type I, Class 1, Group 3  **MIL-A-132B, Type I, Class 3, Group 3
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