106/8

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

Typical applications
Aerospace
Marine
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
106/8 is a 235°F (113°C) to 300°F (150°C) cure, general purpose, flame retardant epoxy, self-adhesive designed for bonding applications requiring high strengths from -67°F (-55°C) to 180°F (82°C).

Benefits/features
• Self-adhesive
• Flame retardant
• FAR 25.853 Appendix F, Part I, (a)(1)(i) & (a)(2)(ii)
• MMM-A-132B, Type I, Class 3, Group 3
• MIL-A-25463B, Type I, Class 1, Group 3

Application
106/8 is suited for structural and secondary bonding applications where flame retardant properties are required. Recommended for use with, but not limited to, Nomex & aluminum honeycombs, metals, cured & uncured epoxy composites, balsa, and foams.

106/8 can be supplied with most commercially available fibers (carbon, quartz, aramid, S-glass, E-glass, etc.) in both woven form (designated as NB) as well as unidirectional tape (designated as NCT).

Woven fabrics are available in standard commercial widths up to 60 inches (1.5 m). Unitape widths up to 39 inches (1 m) are available in standard fiber weights ranging from 70 – 300 gsm (0.014 – 0.060 psf).

106/8 can also be supplied as an adhesive in standard film weights from 0.030 to 0.090 psf (145-440 gsm), either unsupported or on a variety of commercially available reinforcements, including Non-woven polyester carrier (HC), Nylon mesh (N), & and tricot (TR).

Recommended processing conditions
106/8 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>$T_g$ (DMA, E'), °F (°C)</td>
<td>252 (122)</td>
</tr>
</tbody>
</table>

* cured @ 265°F for 120 minutes

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

S-GLASS UNITAPE

Autoclave cured, 50 psi, 60 minutes at 275°F, results as tested

<table>
<thead>
<tr>
<th>Property</th>
<th>Test method</th>
<th>185gsm 31%RC</th>
<th>RT</th>
<th>160°F</th>
<th>244gsm 41%RC</th>
<th>RT</th>
<th>160°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>0° Tensile strength, ksi (MPa)</td>
<td>ASTM D-3039</td>
<td>242 (441)</td>
<td>-</td>
<td>186 (1280)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0° Tensile modulus, Msi (GPa)</td>
<td></td>
<td>7.4 (23)</td>
<td>-</td>
<td>6.1 (42)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0° Compression strength, ksi (MPa)</td>
<td>ASTM D-695 mod.</td>
<td>136 (400)</td>
<td>100 (689)</td>
<td>106 (731)</td>
<td>75 (517)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0° Flexural strength, ksi (MPa)</td>
<td>ASTM D-790</td>
<td>200 (593)</td>
<td>110 (758)</td>
<td>165 (1140)</td>
<td>97 (669)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0° Flexural modulus, Msi (GPa)</td>
<td></td>
<td>7.8 (24)</td>
<td>6.7 (46)</td>
<td>6.1 (42)</td>
<td>5.6 (38.6)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Short beam shear strength, ksi (MPa)</td>
<td>SACMA 8R-94</td>
<td>10.9 (50)</td>
<td>7.3 (50)</td>
<td>10.9 (75)</td>
<td>7.3 (50.3)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CD Peel strength, in-lbs/in (Nm/m)

* press cured @ 250°F for 60 minutes, 25 psi

*¼” cell, 8 lb aluminum core

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<th>Test method</th>
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<th>RT</th>
<th>160°F</th>
<th>244gsm 41%RC</th>
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* cured @ 265°F for 120 minutes

Gel time vs temperature

The information contained herein has been obtained under controlled laboratory conditions and are typical or average values and do not constitute a specification, guarantee, or warranty. Results may vary under different processing conditions or in combination with other materials. The data is believed to be reliable but all suggestions or recommendations for use are made without guarantee. You should thoroughly and independently evaluate materials for your planned application and determine suitability under your own processing conditions before commercialization. Furthermore, no suggestions for use or material supplied shall be considered a recommendation or inducement to violate any law or infringe any patent.