3500
250-300°F (121-149°C) Cure High Performance Epoxy Resin System

Typical applications
Aerospace
Military

Shelf life
14 days at 70°F (21°C)
3 months at 40°F (4°C)
6 months at 0°F (-18°C)

Description
3500 is a 250°F to 300°F (121°C to 149°C) cure, high performance epoxy film adhesive designed for bonding metallic and honeycomb core materials.

Benefits/features
• High peel and shear strength properties
• Exceptional metal-to-metal and honeycomb bonds
• Co-curable with most 250°F (121°C) curing prepregs
• Controlled flow

Application
3500 is suited for structural and secondary bonding applications in aerospace and military where exceptional bond strengths are required.

3500 is supplied in standard film weights from 0.030 to 0.090 psf (150-450 gsm), and a variety of commercially available carriers, including:

• Non-woven polyester mat – 0.0035 psf (17 gsm)
• Nylon tricot – 0.0019 and 0.005 psf (9 and 25 gsm, respectively)

Recommended processing conditions
3500 can be cured at temperatures from 250°F to 300°F (121°C - 149°C) depending on part size and complexity. Low, medium and high pressure molding techniques may be used for curing. Recommended cure cycle is 35 psi (241 kPa); 3°F (1.7°C)/min ramp to 275°F (135°C); hold for 60 minutes, cool to <140°F (60°C).
Neat Resin  [values are average and do not constitute a specification]

<table>
<thead>
<tr>
<th>Property</th>
<th>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>1.20</td>
</tr>
<tr>
<td>Tg (DMA, E'), °C (°F)</td>
<td>120 (248)</td>
</tr>
</tbody>
</table>

Mechanical Data  [values are average and do not constitute a specification]

3500HC @ 0.060 psf (293 gsm), preheated press 275°F, 60 minutes, 35 psi (241 kPa)

<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>Tensile shear strength, psi (MPa)</td>
<td>ASTM D1002</td>
<td>5100 (35)</td>
<td>5000 (34)</td>
<td>3000 (20)</td>
</tr>
<tr>
<td>T peel strength, lbs/in (N/mm)</td>
<td>ASTM D1876</td>
<td>--</td>
<td>35 (6.1)</td>
<td>--</td>
</tr>
<tr>
<td>Floating roller peel str., lbs/in (N/mm)</td>
<td>ASTM D3167</td>
<td>50 (8.7)</td>
<td>68 (11)</td>
<td>75 (13)</td>
</tr>
<tr>
<td>Honeycomb CD peel str., in-lbs/in (Nm/m)</td>
<td>ASTM D1781</td>
<td>20 (88)</td>
<td>22 (97)</td>
<td>20 (88)</td>
</tr>
</tbody>
</table>

Viscosity Profile

TA - AR2000 parallel plate rheometer
Gel Curve

![Gel Curve Graph](image)

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