Starting Formulation

SF 4026 Metal Adhesive 828 3253 Metal Adhesive
EPON™ Resin 828 / EPIKURE™ Curing Agent 3253

Introduction
This adhesive is designed for bonding metal to metal.

Suggested Uses
Bonding of metals, at 25 to 100 °C temperatures. It will also bond to concrete, glass and many rigid plastics.

Features
- Ability to bond to various metal substrates
- Fast cure (15 minutes) can be achieved at 93 °C (200 °F)
- Cures to handling strength in 4 to 5 hours at 25 °C (77 °F)

Formula

<table>
<thead>
<tr>
<th>Material</th>
<th>Supplier</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EPON Resin 828</td>
<td>Hexion</td>
<td>50.0</td>
<td>5.15</td>
</tr>
<tr>
<td>Surfex M.M.</td>
<td>Diamond Shamrock Corp.</td>
<td>50.0</td>
<td>2.26</td>
</tr>
<tr>
<td>Total A</td>
<td></td>
<td>100.0</td>
<td>7.41</td>
</tr>
<tr>
<td>Part B</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thiokol LP-3</td>
<td></td>
<td>25.0</td>
<td>2.36</td>
</tr>
<tr>
<td>EPIKURE Curing Agent 3253</td>
<td>Hexion</td>
<td>5.0</td>
<td>0.61</td>
</tr>
<tr>
<td>Total B</td>
<td></td>
<td>30.0</td>
<td>2.97</td>
</tr>
<tr>
<td>Total Part A &amp; B</td>
<td></td>
<td>130.0</td>
<td>10.38</td>
</tr>
</tbody>
</table>

Mixing Instructions
Blend the resin portion thoroughly. Next, blend the converter portion. Prior to use, mix the two combinations together and blend thoroughly.

Typical Handling Properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Units</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity</td>
<td>Paste</td>
<td></td>
</tr>
<tr>
<td>Pounds/Gallon</td>
<td>lbs/gal</td>
<td>12.53</td>
</tr>
<tr>
<td>Expected Pot Life, one pound batch</td>
<td>mion</td>
<td>30</td>
</tr>
</tbody>
</table>

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Application
All surfaces to be bonded must be free of all oil and dirt. Apply the adhesive 0.005 inch thick on materials to be bonded. Press wet surfaces together and apply weight to assure that there is not any slippage. Adhesives may be applied by brush or trowel. This formulation will cure to handling strength at room temperature in approximately 4 to 5 hours. This adhesive may also be oven-cured at 93 °C in 15 to 20 minutes.

Cured Properties Table 2 / Cured State Properties

<table>
<thead>
<tr>
<th>Shear Strength, psi</th>
<th>Aluminum to Aluminum</th>
<th>Stainless to Aluminum</th>
</tr>
</thead>
<tbody>
<tr>
<td>at 25 °C</td>
<td>1,480</td>
<td>1,884</td>
</tr>
<tr>
<td>at 93 °C</td>
<td>1,464</td>
<td>1,847</td>
</tr>
<tr>
<td>at 121 °C</td>
<td>1,000</td>
<td>–</td>
</tr>
</tbody>
</table>

Storage
Recommendations regarding storage conditions can be obtained by visiting our web site at www.hexion.com

General Information
These are starting formulations and are not proven in the user’s particular application but are simply meant to demonstrate the efficacy of the products and to assist in the development of the user’s own formulation. It is the user’s responsibility to fully-test and qualify the formulation, along with the ingredients, methods, applications or equipment identified herein (“Information”), by the user’s knowledgeable formulator or scientist, and to determine the appropriate use conditions and legal restrictions, prior to use of any Information.

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