**Starting Formulation**

**SF 4028 Adhesive for Concrete 828 3072 Adhesive for Concrete**

**EPON™ Resin 828 / EPIKURE™ Curing Agent 3072**

**Introduction**
This adhesive cures well in the presence of moisture. It is suggested as an adhesive for bonding freshly cast concrete to old concrete.

<table>
<thead>
<tr>
<th>Formula</th>
<th>Material</th>
<th>Supplier</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Part A</td>
<td>EPON Resin 828</td>
<td>Hexion</td>
<td>100.0</td>
<td>10.31</td>
</tr>
<tr>
<td>Part B</td>
<td>EPIKURE Curing Agent 3072</td>
<td>Hexion</td>
<td>35.00</td>
<td>4.27</td>
</tr>
<tr>
<td></td>
<td>Filler (Optional)</td>
<td>C.K. Williams Co.</td>
<td>200.00</td>
<td>9.07</td>
</tr>
</tbody>
</table>

**Mixing Instructions**
For the formula without fillers, all that is required to mix small batches is a convenient stirring rod such as a spatula. For larger unfilled batches and batches containing filler, mechanical agitation would be desirable.

**Typical Handling Properties**

<table>
<thead>
<tr>
<th>Properties</th>
<th>Unfilled</th>
<th>Filled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Density (lbs/gal)</td>
<td>9.27</td>
<td>14.15</td>
</tr>
<tr>
<td>Pot Life at 77°F, in 1 lb. batch</td>
<td>0.5</td>
<td>0.75</td>
</tr>
<tr>
<td>Gel Time at 77°F, in thin film</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Viscosity (cP)</td>
<td>4,000</td>
<td>12,000</td>
</tr>
</tbody>
</table>

**Application**
The old concrete should be cleaned prior to applying the adhesive. Acid etching of old concrete is the preferred cleaning method.

**Typical Cured State**
Concrete beams were broken in flexure. New concrete was poured onto the broken faces after first applying the adhesive. Upon re-breaking, the fractures occurred primarily in the old concrete, a few in the new concrete, but no breaks were encountered at the bonded interface.

The flexural strengths of both the original and reconstructed beams were equal, showing that the adhesive and cohesive strengths of the epoxy system are greater than the flexural strength of the concrete. The original beams had average flexural strengths of 600 psi.

**Storage**
Recommendations regarding storage conditions can be obtained by visiting our web site at [www.hexion.com](http://www.hexion.com).

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