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.

**Formula**

<table>
<thead>
<tr>
<th>Material</th>
<th>Supplier</th>
<th>Pounds</th>
<th>Gallons</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPON Resin 828</td>
<td>Hexion</td>
<td>100.0</td>
<td>10.31</td>
</tr>
<tr>
<td>EPIKURE Curing Agent 3072</td>
<td>Hexion</td>
<td>35.00</td>
<td>4.27</td>
</tr>
<tr>
<td>Super White Silica</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>Property</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 (hrs)</td>
<td>0.5</td>
<td>0.75</td>
</tr>
<tr>
<td>Gel Time at 77°F, in thin film (hrs)</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).
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.

Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. (“Hexion”) products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

Contact Information

For product prices, availability, or order placement, please contact customer service:

www.hexion.com/Contacts/

For literature and technical assistance, visit our website at www.hexion.com