Starting Formulation

SF 4020 One-Package Cure Adhesive 828 One-Package Rapid Cure Adhesive

EPON™ Resin 828

Introduction
This accelerated one-package Epoxy/DICY adhesive, properly formulated, can yield over three months pot life when stored at normal room temperature, yet develops good bond strengths on relatively short cure schedules of 30 minutes at 149 °C or 40 minutes at 135 °C.

Suggested Uses
- Automotive trim adhesives
- Aircraft adhesives
- General purpose industrial use

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</td>
<td>10.31</td>
</tr>
<tr>
<td>Dicyandiamide (DICY)</td>
<td>Dicy, SKW Corporation</td>
<td>10</td>
<td>0.75</td>
</tr>
<tr>
<td>Bentone 27</td>
<td>Rheox, Inc.</td>
<td>10</td>
<td>0.75</td>
</tr>
<tr>
<td>Tetramethyl Ammonium Chloride</td>
<td>Distillation Products Industries</td>
<td>3</td>
<td>0.34</td>
</tr>
<tr>
<td>Calcium Carbonate No. 1 White</td>
<td>Thompson, Weinman &amp; Company</td>
<td>50</td>
<td>2.22</td>
</tr>
</tbody>
</table>

Total                                      | 173                  | 14.48   |

Mixing Instructions
Blend all ingredients and pass at least twice over a three-roll mill for thorough dispersion of the powdered DICY, Accelerator and Bentone 27.

Typical Handling Properties

<table>
<thead>
<tr>
<th>Form</th>
<th>Thixotropic Paste</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Denisty</td>
<td>lbs/gal</td>
<td>11.9</td>
</tr>
<tr>
<td>Expected pot life at 25 °C</td>
<td>months</td>
<td>&gt; 3</td>
</tr>
</tbody>
</table>

Application
All surfaces to be bonded should be free of dirt, oil, grease, or other contaminants to insure maximum adhesion. Apply adhesive to both surfaces to be bonded and cure at 135 °C or above. Contact pressure is adequate for development of maximum bond strength.

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.

® and ™ Licensed trademarks of Hexion Inc.

DISCLAIMER

The information provided herein was believed by Hexion Inc. (“Hexion”) to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Hexion are subject to Hexion’s terms and conditions of sale. Hexion MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY Hexion, except that the product shall conform to Hexion’s specifications. Nothing contained herein constitutes an offer for the sale of any product.
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

© and ™ Licensed trademarks of Hexion Inc.

DISCLAIMER

The information provided herein was believed by Hexion Inc. ("Hexion") to be accurate at the time of preparation or prepared from sources believed to be reliable, but it is the responsibility of the user to investigate and understand other pertinent sources of information, to comply with all laws and procedures applicable to the safe handling and use of the product and to determine the suitability of the product for its intended use. All products supplied by Hexion are subject to Hexion’s terms and conditions of sale. HEXION MAKES NO WARRANTY, EXPRESS OR IMPLIED, CONCERNING THE PRODUCT OR THE MERCHANTABILITY OR FITNESS THEREOF FOR ANY PURPOSE OR CONCERNING THE ACCURACY OF ANY INFORMATION PROVIDED BY HEXION, except that the product shall conform to Hexion’s specifications. Nothing contained herein constitutes an offer for the sale of any product.