Versilok® 271/331 Acrylic Adhesive

Description
LORD Versilok® 271/331 adhesive is a two-component, epoxy-modified acrylic adhesive used to bond a variety of automotive sheet metals, including hot-dip galvanized, electro-galvanized, bare aluminum, and cold rolled steel. Versilok 271/331 adhesive can be either room temperature cured or heat cured for faster processing.

Glass beads are included in the adhesive system providing a mechanical lock between substrates. Versilok 271/331 adhesive also contains an odor suppressant. Versilok 271/331 adhesive is approved by Chrysler (MS-CD-500).

Features and Benefits

- **Strong Mechanical Lock** – contains glass beads which provide a mechanical lock that will prevent shifting of substrate panels.

- **Easy to Apply** – utilizes non-sagging rheology; replaces the need for spot welding which degrades metal and allows rusting to occur.

- **Low Temperature Cure** – develops a high strength bond in less than one hour at room temperature, eliminating metal warpage caused by high curing induction temperatures. Induction heating should be conducted at 110°C (230°F) or below.

- **Bonds Unprepared Metals** – bonds exceptionally well through the various stamping lubricants typically present on metals, eliminating the need for advance cleaning and surface preparation.

- **Environmentally Resistant** – provides excellent resistance to moisture, sunlight, salt spray and thermal cycling; sustains short exposure to postbakes up to 204°C (400°F).

Application

- **Surface Preparation** – No advance cleaning or preparation of metals is necessary.

- **Mixing** – When mixing by weight, mix 3.3 parts Versilok 271 resin to 1 part Versilok 331 hardener. When mixing by volume, mix 4 parts Versilok 271 resin to 1 part Versilok 331 hardener.

Typical Properties*

<table>
<thead>
<tr>
<th>Property</th>
<th>271 Resin</th>
<th>331 Hardener</th>
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</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>White Paste</td>
<td>Gray Paste</td>
</tr>
<tr>
<td>Viscosity, cps agitated sample</td>
<td>100,000-450,000</td>
<td>130,000-400,000</td>
</tr>
<tr>
<td>Density g/cm³ (lb/gal)</td>
<td>1.13-1.20 (9.4-10.0)</td>
<td>1.38-1.48 (11.50-12.40)</td>
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<tr>
<td>Flash Point (Closed Cup), °C (°F)</td>
<td>&gt;93 (200)</td>
<td>&gt;93 (200)</td>
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*Data is typical and not to be used for specification purposes.
Applying – Apply mixed adhesive to the metal surface. Place the assembly in the desired position within 15-20 minutes. Handling strength will develop faster if heat is supplied to the bondline.

Curing – Handling strength is achieved after curing for 30-40 minutes at room temperature [25°C (77°F)]. Full cure and final properties are achieved by E-coat oven cure.

Shelf Life/Storage
Shelf life is six months from date of shipment when stored at 25°C (77°F) in original, unopened container.

Cautionary Information
Before using this or any LORD product, refer to the Safety Data Sheet (SDS) and label for safe use and handling instructions.

For industrial/commercial use only. Must be applied by trained personnel only. Not to be used in household applications. Not for consumer use.

Values stated in this technical data sheet represent typical values as not all tests are run on each lot of material produced. For formalized product specifications for specific product end uses, contact the Customer Support Center.

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