**Product Information**

**Silicone Sealants**

**Dow Corning® 799 Silicone Glass and Metal Building Sealant**

**FEATURES**
- Primerless – can be used with many materials without the use of a primer
- Noncorrosive – will not react with or corrode common building materials
- Translucent color
- Fast cure – 5 to 10 minutes tooling time and 15 minutes tack-free time
- Pleasant odor
- All-temperature gunnability – consistency is unchanged from -37 to 60°C (-35 to 140°F), permitting sealant application in any season
- Excellent weatherability in sunlight, rain, snow, ozone or temperature extremes
- Long-life reliability – the cured sealant stays rubbery from -62 to 177°C (-80 to 350°F)

**COMPOSITION**
- One-part RTV silicone sealant

**APPLICATIONS**

*Dow Corning® 799 Silicone Glass and Metal Building Sealant* is designed for:
- Conventional glazing applications
- Weatherseal applications including perimeter sealing of doors and windows
- Sealing around metal building flashings, gutters and gutter outlets
- Factory-applied glass where it would serve as the primary seal bedding compound in a finished sash
- Factory and field installation of metal building systems and components such as standing seam roofing systems, gutter and drain systems, etc.

*Dow Corning 799 Silicone Glass and Metal Building Sealant* adapts well to factory- and field-applied applications, whether they are new or remedial.

**TYPICAL PROPERTIES**

<table>
<thead>
<tr>
<th>Method</th>
<th>Test</th>
<th>Unit</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>As Supplied</td>
<td>Colors</td>
<td></td>
<td>Translucent, custom colors</td>
</tr>
<tr>
<td>ASTM C 679</td>
<td>Tack-Free Time, 50% RH</td>
<td>minutes</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Curing Time, 50% RH at 25°C (77°F)</td>
<td>days</td>
<td>7-14</td>
</tr>
<tr>
<td>ASTM C 639</td>
<td>Flow, Sag or Slump</td>
<td></td>
<td>Nil</td>
</tr>
<tr>
<td></td>
<td>Working Time</td>
<td>minutes</td>
<td>5-10</td>
</tr>
<tr>
<td>As Cured</td>
<td>ASTM D 2240 Durometer Hardness, Shore A</td>
<td>points</td>
<td>30</td>
</tr>
<tr>
<td>As Cured – After 14 days at 25°C (77°F)</td>
<td>ASTM D 412 Ultimate Tensile Strength</td>
<td>psi (kg/mm²)</td>
<td>230 (0.162)</td>
</tr>
<tr>
<td></td>
<td>ASTM D 412 Ultimate Elongation</td>
<td>percent</td>
<td>350</td>
</tr>
<tr>
<td></td>
<td>ASTM C 794 Peel Strength, unprimed to aluminum and glass</td>
<td>pli (kg/m)</td>
<td>25 (446)</td>
</tr>
</tbody>
</table>

**DESCRIPTION**

*Dow Corning 799 Silicone Glass and Metal Building Sealant* is a noncorrosive sealant that cures in the presence of atmospheric moisture. This product exhibits unprimed adhesion to many construction materials. Once cured, the sealant forms a durable, flexible, watertight bond with most building materials in any combination: glass, plastic, metal, concrete and masonry. In most cases, no prime coat is required.

*Dow Corning 799 Silicone Glass and Metal Building Sealant* is supplied as a one-part, ready-to-use material that has a consistency similar to toothpaste.

*Dow Corning 799 Silicone Glass and Metal Building Sealant* is translucent. Custom colors are also available.

*Dow Corning 799 Silicone Glass and Metal Building Sealant* is compatible with reflective glass, most laminated...
glass, most insulating glass units and acrylic glazing sheets. However, this product may stress-crack some plastics and should be tested prior to use.

Dow Corning 799 Silicone Glass and Metal Building Sealant is a chemically stable silicone material that shows little change in physical properties when exposed to the environment.

Approvals/Specifications
Dow Corning 799 Silicone Glass and Metal Building Sealant exceeds the test requirements of:
- Federal Specification TT-S-001543A (COM-NBS) Class A
- Federal Specification TT-S-00230C (COM-NBS) Class A
- ASTM Specification C-920 Type S
- G, A

HOW TO USE
Please refer to the Dow Corning Americas Technical Manual, Form No. 62-1112, for detailed information on joint design, surface preparation and installation procedures.

Joint Design
A thin bead of Dow Corning 799 Silicone Glass and Metal Building Sealant will accommodate more movement than a thick bead. Joint depths of Dow Corning 799 Silicone Glass and Metal Building Sealant should be no thicker than \( \frac{1}{32} \)" (13 mm) and no thinner than \( \frac{1}{8} \)" (3 mm). For perimeter sealing or expansion joint design, the ratio of joint width to sealant depth should be about 2:1.

Polyurethane or polyethylene foam rod is the recommended back-up material for deep joints. Use polyethylene tape for joints too shallow to allow foam rod. These materials permit the application of a thin bead and act as bond breakers, which allow the silicone sealant to stretch freely with the joint movement.

Preparatory Work
Clean all joints and glazing pockets, removing all foreign matter and contaminants such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds, and protective coatings.

Metal, glass and plastic surfaces should be cleaned by mechanical or solvent procedures. Detergent or soap and water treatment are not acceptable. In all cases where used, solvents should be wiped on and off with clean, oil- and lint-free cloths.¹

Priming
Consult Dow Corning for priming recommendations for various substrates. NOTE: Prior to general job use, place a bead of sealant on the substrate material to test adhesion.

Masking
After cleaning and priming, areas adjacent to joints may be masked to ensure neat sealant lines. Do not allow masking tape to touch clean surfaces to which the silicone sealant is to adhere. Tooling should be completed in one continuous stroke immediately after sealant application and before a skin forms. Masking should be removed immediately after tooling.

Application
Install back-up material or joint filler, setting blocks, spacer shims and tapes as specified. Apply Dow Corning 799 Silicone Glass and Metal Building Sealant in a continuous operation using a positive pressure adequate to properly fill and seal the joint. Tool or strike Dow Corning 799 Silicone Glass and Metal Building Sealant with light pressure to spread the material against the back-up material and the joint surfaces. A tool with a concave profile is recommended to keep the sealant within the joint.

When glazing, tool the sealant applied at the sill so that precipitation and cleaning solutions will not pool. Dow Corning 799 Silicone Glass and Metal Building Sealant can be applied at outdoor temperatures as low as -37°C (-35°F) provided that surfaces are clean, dry and frost-free.

Excess sealant should be cleaned from glass, metal and plastic surfaces while still uncured using a commercial solvent such as xylol, toluol or methyl ethyl ketone.¹ Should the sealant accidentally contact adjacent porous surfaces, the excess sealant should be allowed to progress through the initial cure or set-up. It should then be removed by abrasion or other mechanical means.

HANDLING PRECAUTIONS
PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND MATERIAL SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE MATERIAL SAFETY DATA SHEET IS AVAILABLE ON THE DOW CORNING WEBSITE AT WWW.DOWCORNING.COM, OR FROM YOUR DOW CORNING REPRESENTATIVE, OR DISTRIBUTOR, OR BY CALLING YOUR GLOBAL DOW CORNING CONNECTION.

USABLE LIFE AND STORAGE
When stored in original, unopened containers at or below 32°C (90°F), Dow Corning 799 Silicone Glass and Metal Building Sealant has a shelf life of 12 months from date of manufacture. Refer to product packaging for “Use By” date.

For best storage results, keep Dow Corning 799 Silicone Glass and Metal Building Sealant in tightly closed containers when not in use.

¹Caution: When using flammable solvents, keep away from heat, sparks and open flames. Use only with adequate ventilation. Avoid prolonged breathing of vapor and prolonged or repeated skin contact. Always follow solvent container label instructions and local, state and federal regulations.
PACKAGING

*Dow Corning* 799 Silicone Glass and Metal Building Sealant is packaged in 10.3-fl oz (305-mL) disposable cartridges that fit ordinary caulking guns, 4.5-gal (17-L) bulk pails and 48-gal (182.4-L) fiber drums. It can be dispensed by many air-operated guns and most types of bulk dispensing equipment.

LIMITATIONS

*Dow Corning* 799 Silicone Glass and Metal Building Sealant is not recommended for use:
- Below grade or in horizontal joints where physical abuse or abrasion is likely to be encountered
- For structural silicone glazing applications
- In totally confined spaces where sealant cannot cure because of a lack of atmospheric moisture
- On surfaces that will be painted (the paint film will not stretch with the extension of the sealant and may crack or peel)
- On wet or frost-laden surfaces
- On substrates that bleed oil or plasticizers

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

HEALTH AND ENVIRONMENTAL INFORMATION

To support customers in their product safety needs, Dow Corning has an extensive Product Stewardship organization and a team of Product Safety and Regulatory Compliance (PS&RC) specialists available in each area.

For further information, please see our website, www.dowcorning.com, or consult your local Dow Corning representative.

LIMITED WARRANTY INFORMATION – PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer’s tests to ensure that Dow Corning’s products are safe, effective, and fully satisfactory for the intended end use. Suggestions of use shall not be taken as inducements to infringe any patent.

Dow Corning’s sole warranty is that the product will meet the Dow Corning sales specifications in effect at the time of shipment.

Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted.

DOW CORNING SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

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