



Technical Data Sheet

DOWSIL™ 799 Silicone Glass and Metal Building Sealant

Silicone sealant for glazing and weathersealing applications

Features & Benefits

- Primerless – can be used with many materials without the use of a primer
- Noncorrosive – will not react with or corrode common building materials
- Fast cure – 5 to 10 minutes tooling time and 20 minutes tack-free time
- Excellent weather resistance against sunlight, rain, snow, and temperature extremes
- Long-life reliability – cured sealant stays elastic from -40°C to 149°C (-40 to 300°F)
- AAMA Certified

Composition

- One-part RTV silicone sealant

Applications

DOWSIL™ 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

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Test ¹	Property	Unit	Result
As Supplied			
ASTM C 679	Tack-Free Time, 50% RH	minutes	20
	Curing Time, 50% RH at 25°C (77°F)	days	7–14
ASTM D 2202	Flow, Sag or Slump		Nil
	Working Time	minutes	5–10
As Cured			
ASTM C 661	Durometer Hardness, Shore A	points	30
As Cured – After 14 days at 25°C (77°F)			
ASTM D 412	Ultimate Tensile Strength	Psi (MPa)	230 (1.59)
ASTM D 412	Ultimate Elongation	percent	500

1. ASTM: American Society for Testing and Materials.

Description

DOWSIL™ 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 and flexible bond with most building materials. In most cases, no prime coat is required.

DOWSIL™ 799 Silicone Glass and Metal Building Sealant available in clear, black, white and gray.

DOWSIL™ 799 Silicone Glass and Metal Building Sealant will provide years of worry-free performance against rain, sun, and temperature extremes.

Approvals/Specifications

ASTM Specification C-920 Type S, Grade NS, Class 25, Use NT, G and A.

How to Use

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

Preparation

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

Application

Install back-up material or joint filler, setting blocks, spacer shims and tapes as specified. Apply DOWSIL™ 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 DOWSIL™ 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.

DOWSIL™ 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 isopropyl, xylene, toluene or methyl ethyl ketone.¹

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.

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Usable Life and Storage

Product should be stored at or below 32°C (90°F) in original, unopened containers.

Limitations

DOWSIL™ 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.

DOWSIL™ 799 Silicone Glass and Metal Building Sealant:

- May discolor sensitive metals such as copper and brass.
- May stress-crack polycarbonate.

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 has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

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

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products - from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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