Product Information

Silicone Sealants

DOW CORNING

Dow Corning® 791 Silicone Weatherproofing Sealant

Neutral, one-part silicone sealant

FEATURES

- Ideal for expansion, connection, perimeter and other movement joints
- Neutral cure – suitable for use on coated glass, galvanized steel, copper, masonry and other porous and non-porous substrates
- Low modulus sealant according to ISO standards; medium modulus according to Dow Corning standards
- Extension/compression movement capability of up to ±50 percent of the original joint width

BENEFITS

- Excellent weatherability, virtually unaffected by sunlight, rain, snow, ozone or temperature extremes
- Excellent unprimed adhesion to a wide variety of construction materials and building components, including *Kynar*™[1] and anodized coated aluminum; for further clarification, refer to the application method in this data sheet
- Ease of application – ready to use as supplied
- Excellent rheology, low string upon gunning
- Meets global standards (America, Asia and Europe)
- Compatible with all Dow Corning structural sealants

COMPOSITION

- One-part, neutral-cure sealant

[1]*Kynar* is a trademark of Atofina Chemicals, Inc.

APPLICATIONS

Dow Corning® 791 Silicone Weatherproofing Sealant is a specified, premium performance weathersealing product specifically designed for general glazing and weathersealing in curtainwall and building facades

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning Sales Application Engineer or Dow Corning Customer Service before writing specifications on this product.

Method	Test	Unit	Result
Uncured – As Tested at 50% RH and 23°C (73°F)			
ASTM[1] D 2202	Flow (sag or slump)	mm (inches)	0
ASTM C 603	Extrusion Rate	g/minute	210
CTM[2] 98B	Working Time	minutes	15
ASTM C 679	Tack-free Time	minutes	35
	Curing Time	days	7-14
CTM 97B	Specific Gravity		1.52
	Application Temperature Range	°C (°F)	-25 to 50 (-13 to 122)
	VOC Content[3]	g/L	46
As Cured – After 7 days at 50% RH and 23°C (73°F)			
ASTM D 2240	Durometer Hardness, Shore A	points	30
ISO[4] 7389	Elastic Recovery	percent	91
ISO 9047	Movement Capability	percent	±50
ISO 11600	Sealant Class		Low Modulus 25LM F and G
As Cured – After 28 days at 50% RH and 23°C (73°F) – 12 x 12 x 50 mm T.A. joint (ISO 8339) [0.5 x 0.5 x 2 inch T.A. joint (ASTM C 1135)]			
	Tensile/Modulus at 25% Elongation	MPa (psi)	0.3 (40)
	Tensile at 50% Elongation	MPa (psi)	0.35 (60)
	Modulus at 100% Elongation	MPa (psi)	0.4 (70)
	Ultimate Tensile Strength	MPa (psi)	0.75 (120)
	Ultimate Elongation at Break	percent	460
ASTM C 711	Service Temperature Range	°C (°F)	-50 to 150 (-58 to 302)

[1]ASTM – American Society for Testing and Materials.
[2]CTM – Corporate Test Method; copies of CTMs are available on request.
[3]Based on South Coast Air Quality Management District of California. Maximum VOC is listed both inclusive and exclusive of water and exempt compounds. For a VOC data sheet for a specific sealant color, please send your request to product.inquiry@dowcorning.com.
[4]ISO – International Standardisation Organisation.

DESCRIPTION

Dow Corning 791 Silicone Weatherproofing Sealant is a one-part, neutral-cure, architectural grade sealant. It easily extrudes in any weather and quickly cures at room temperature by reaction with moisture in the air to form a durable, flexible silicone rubber seal.

APPROVALS/ SPECIFICATIONS

Meets the requirements of:

- ASTM C- 920 Type S, Grade NS, Class 50, Use NT, M, G, A
- ISO 11600 F&G-25LM
- GB/T 14683b G and F (China)
- BS 5889
- D 18540 Class NF
- SNJF Vitrage et Façade Category 1

Colors

This product is available in 6 colors: black, gray, bronze, limestone, precast white and white.

HOW TO USE

Please consult the *Dow Corning Americas Technical Manual*, Form No. 62-1112, for detailed information on state-of-the-art application methods and joint design. Please contact your local Dow Corning Sales Application Engineer for specific advice.

Preparation

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

Application Method

Install backing material or joint filler, setting blocks, spacer shims and tapes. Areas adjacent to joints may be masked to ensure neat sealant lines. Primer is generally not required on non-porous surfaces. On porous surfaces, Dow Corning recommends that a test sample be carried out prior to application. To confirm optimum adhesion on either a porous or non-porous surface, adhesion testing should always be carried out prior to the commencement of any project. Please contact your local Dow Corning Sales Application Engineer for specific advice.

Apply *Dow Corning* 791 Silicone Weatherproofing Sealant in a continuous operation using a positive pressure. Tool the sealant with light pressure to spread the sealant against backing material and the joint surfaces before a skin forms. The applied sealant should be tooled within 15 minutes or before a cured skin forms. Remove masking tape as soon as the bead is tooled.

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 SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CORNING CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored at or below 30°C (86°F) in the original unopened containers, *Dow Corning* 791 Silicone Weatherproofing Sealant has a usable life of 12 months from the date of manufacture. Refer to product packaging for "Use By" date.

PACKAGING

Dow Corning 791 Silicone Weatherproofing Sealant is available in 300- and 310-mL (10.1- and 10.5-fl oz) disposable cartridges and in 500- and 600-mL (16.9- and 20.3-fl oz) foil sausages depending on location of purchase. Please check with your local Dow Corning Sales Application Engineer for local packaging range availability.

LIMITATIONS

This product is not approved for use as a structural sealant.

This product should not be applied:

- To building materials that bleed oils, plasticizers or solvents, green or partially vulcanized rubber gaskets or tapes
- In totally confined spaces
- For continuous immersion in water or in below-grade applications
- When surface temperatures exceed 50°C (122°F)
- To frost-laden or wet surfaces

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 web site, www.dowcorning.com, or consult your local Dow Corning Sales Application Engineer.

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.

DOW CORNING DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

A 20-year Weatherseal Limited Warranty is available. Some testing may be required. Consult your Dow Corning Sales Application Engineer for details.

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