Technical Data Sheet

DOWSIL™ 718 Sealant

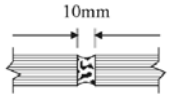
FEATURES & BENEFITS

- Ease of application. Ready to use as supplied; one-component, moisture cure, no need for mixing.
- Excellent weatherability, offering resistance to sunlight, rainwater, snow, ozone or extreme temperatures.
- Reasonable durability; the cured sealant can maintain its elasticity in temperatures of -50°C to 150°C without hardening, cracking or degrading.
- Translucent vision.
- Meet GB/T 14683 and JC/T 882
- ± 25 movement capability

Neutral cure, one-component, silicone weatherproofing sealant

APPLICATIONS

- DOWSIL™ 718 Sealant is a one-component, neutral curing construction sealant which can provide a long-term, elastic, water-proof rubber seal mostly apply for spider bolt system and glass butt joint applications.



TYPICAL PROPERTIES

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

Test*	Property	Unit	Result
	As supplied – Test at room temperature of 25°C and relative humidity of 50%		
	Color		translucent
GB13477-6 - 2002	Flowing, sag (Vertical)	mm	0.5
ASTM C603	Extrusion rate	g/min	300
CTM98B	Working time	Min.	Approx. 10
GB 13477.5-2002	Tack free time	Min.	Approx. 18
	Deep section curing	mm/day	1-2
	Within 7 days after curing at atmospheric temperature of 25°C and relative humidity of 50%		
GB 13477.2-2002	Special Gravity		1.02
ASTM D2240	Hardness, Shore A		20
GB13477	Sealant grade	LM	20LM
ASTM D412	Ultimate tensile strength	MPa	1.5
ASTM D412	Ultimate Elongation	%	500
ASTM C719	Movement Capability	%	± 25

*GS: Guobiao Standards, national standard of China test method for building sealants.
CTM: Corporate Testing Method.
ASTM: American Society for Testing and Materials.

DESCRIPTION

DOWSIL™ 718 Sealant is a one-part, neutral-cure RTV sealant the cured sealant can maintain its elasticity in temperatures of -50°C to 150°C without hardening, cracking or degrading.

TECHNICAL INFORMATION

DOWSIL 718 Sealant will provide years of worry-free performance against rain, sun, and temperature extremes.

TECHINICAL SERVICE

Adhesion Testing

Dow will evaluate the adhesion of our product to materials representative of those to be used on the job (i.e., glass, metal, masonry, composites, etc.) using a modified ASTM C794 peel adhesion test.

Compatibility Testing

Chemically incompatible glazing accessories (gaskets, spacers, setting blocks, etc.) can lead to sealant discoloration and/or loss of sealant adhesion to the substrate. To ensure a product's suitability, Dow tests the compatibility of job site representative accessory materials with its silicone sealants using ASTM Cl087.

Non-Stain Testing

If natural stone is being used on the project, Dow can test and evaluate the performance of its sealants to determine if fluid in the sealant has the potential to migrate into porous substrates such as granite, marble, travertine and limestone. Job site representative samples of the stone need to be tested using a modified ASTM C1248 procedure.

DESIGN OF WEATHERPROOF JOINT

Proper joint design can reduce the stress on the sealant and help obtain optimal sealant movement capability, improve the ease of application, reduce cohesive failure, and minimize the effects of curing byproducts.

Design guidelines:

1. Minimum joint width: 6 mm.
2. Minimum joint depth: 6 mm.

For larger joints, the width of the joint shall be larger than the depth of sealant.

HOW TO USE

Surface cleaning

The surface of the substrate should be sufficiently clean, dry, flat and free of foreign matter. Completely remove any existing sealant.

For the selection of solvent, please refer to the adhesion test report.

Use of primer

Consult the adhesion test report to determine if the use of a DOWSIL primer is recommended. The adhesion test report can be requested from the Dow Chemical Company.

Backing material

At the bottom of the joint, use backer rod (e.g. closed-cell type polyethylene or open-cell polyurethane foams) or equivalent material (e.g. low-viscosity polyethylene tape) to control the depth of sealant. Avoid 3-sided adhesion by preventing the sealant from adhering to the bottom of the joint.

Masking and Tooling

Masking tape can be used in the area adjacent to the joint to ensure a neat sealant line, preventing the surrounding surplus sealant from contaminating the substrate surface.

Sealant filling

Apply sealant to the bottom of the joint to fill the joint completely and to ensure adhesion to both sides of the joint. Do not apply the sealant simply on the surface as the sealant cannot fully fill the joint by gravity.

HANDLING PRECAUTIONS

Before handling, you can obtain the Safety Data Sheet from your local office.

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 WWW.CONSUMER.DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

USABLE LIFE AND STORAGE

When stored below 30°C in the original unopened containers, this product has a usable life of 12 months from the date of production.

PACKAGING INFORMATION

DOWSIL 718 Sealant is available to customers in 300 ml tubes package. Please contact your local sales office to obtain the relevant information.

LIMITATIONS

DOWSIL 718 Sealant is not intended for use:

- For continuous water immersion
- In below-grade applications
- In spaces totally confined from atmospheric moisture during cure
- In silicone structural glazing applications
- As an insulating glass (IG) sealant
- On surfaces that will require painting or staining
- On surfaces that might bleed oils, plasticizers, or solvents
- On frost-laden or wet surfaces
- In areas where abrasion and physical abuse are encountered

Premature movement of the unit may impact system performance. DOWSIL 718 Sealant 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, www.consumer.dow.com or consult your local Dow 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 our 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's sole warranty is that our products will meet the 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.

TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, DOW SPECIFICALLY DISCLAIMS ANY OTHER EXPRESS OR IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY.

DOW DISCLAIMS LIABILITY FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES.

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Table 1: Estimated sealant consumption* for joints of various dimensions.

Application length per piece of (300 ml) DOWSIL 718 Sealant (m).

Depth of joint (mm)	Width of joint (mm)					
	6	9	12	15	20	25
6	8.4	5.6	4.2	3.7	2.5	2.0
9	N/O	3.7	2.8	2.2	1.7	1.4
12	N/O	N/O	2.1	1.7	1.3	1.0

*The actual consumption of sealant varies depending on the joint design, position of backing material, tooling technology and building site wastage.