

Silicone Sealants

Dow Corning® 3-7509 Silicone Insulating Glass Sealant

FEATURES

- Good unprimed adhesion to uncoated glass and aluminum
- Single component formulation, minimizing waste and downtime by eliminating base purging and static mixer maintenance
- Consistently non-slump, permitting automated glazing
- Excellent shelf life stability
- Easy tooling

COMPOSITION

- Single-component silicone sealant

Silicone sealant for use as a secondary sealant in dual-sealed insulating glass units

APPLICATIONS

Dow Corning® 3-7509 Silicone Insulating Glass Sealant is intended for use as a secondary sealant in a dual-sealed insulating glass unit (see Figure 1). A primary seal, typically polyisobutylene, is required to prevent moisture vapor from transmitting into the airspace of the insulating glass unit. *Dow Corning* 3-7509 Silicone Insulating Glass Sealant can bond the individual components, forming a weather-resistant unit capable of being certified to a CBA rating by an independent test laboratory in accordance with industry standards.¹

TYPICAL PROPERTIES

Specification Writers: Please contact your local Dow Corning sales office or your Global Dow Corning Connection before writing specifications on this product.

Method	Test	Unit	Result
As Supplied			
	Color		Black
CTM* 0044	Specific Gravity		1.04
ASTM D 2377	Tack-Free Time	minutes	10
ASTM D 2202	Flow/Sag (Slump)	inches (mm)	<0.2 (<5.1)
ASTM C 1183	Extrusion Rate, 90 psi, 1/8" orifice	g/min	295
CTM 0663	Deep Section Cure,		
	after 8 hours	inches (mm)	0.070 (1.78)
	after 24 hours	inches (mm)	0.112 (2.84)
As Cured – 7 Days at 25°C (77°F) and 50 percent Relative Humidity			
ASTM D 2240	Durometer Hardness, Shore A	points	35
ASTM D 412	Tensile Strength	psi (MPa)	300 (2.07)
ASTM D 412	Elongation	percent	350
ASTM C 794	Adhesion in Peel, Cohesive Failure		
	Glass	percent	100
	Aluminum	percent	100
	Tensile Adhesion to Glass,		
	1/2" x 1/2" x 2" (13 x 13 x 51-mm) joint		
	Ultimate Tensile Strength	psi (MPa)	123 (0.85)
	25% Modulus	psi (MPa)	59 (0.41)
	Cohesive Failure	percent	100

*CTMs (Corporate Test Methods) correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

DESCRIPTION

Dow Corning 3-7509 Silicone Insulating Glass Sealant is a single-component silicone sealant that cures in the presence of atmospheric moisture to produce a durable, high-modulus, flexible silicone seal. It is an acetoxycure sealant that liberates acetic acid during cure.

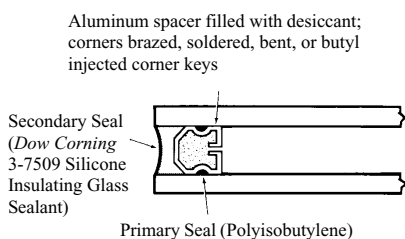
¹Per ASTM E 774, Standard Specification for Sealed Insulating Glass Units.

HOW TO USE

Design Considerations

Insulating glass units intended for conventional dry glazing or residential window applications should be designed with secondary sealant dimensions in accordance with the "Sealant Manufacturers' Minimum Sealant Dimensions and Placement Survey," distributed by SIGMA, 7/1/89.

Figure 1: Dual-Seal Type



Adhesion and compatibility should be evaluated before sealant use. If requested, Dow Corning may provide assistance in performing adhesion testing to glass or spacer surfaces before use of *Dow Corning* 3-7509 Silicone Insulating Glass Sealant in production quantities.

Surface Preparation

Before using this product, clean all surfaces, removing all foreign matter and contaminants, such as grease, oil, dust, water, frost, surface dirt, old sealants or glazing compounds and protective coatings.

Clean all surfaces by mechanical or solvent procedures. Always wipe solvents on and off with clean, oil- and lint-free cloths.²

Testing

Dow Corning recommends several in-house quality control tests to ensure optimum sealant performance. These tests include:

- Cure test to ensure expected sealant cure rate
- Tab adhesion tests to ensure proper sealant adhesion to production surfaces

These tests should be performed every time sealant batches are changed. Specific procedures for these recommended tests can be supplied by Dow Corning.

Tooling

To obtain optimum adhesion, joints should be tooled immediately after sealant application to ensure complete substrate contact.

²Follow solvent manufacturer's recommended safe handling instructions and applicable federal, state and local laws.

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 at or below 27°C (80°F) in airtight containers, *Dow Corning* 3-7509 Silicone Insulating Glass Sealant will have a shelf life of 12 months from date of manufacture. Refer to product packaging for "Use By" date.

PACKAGING

Dow Corning 3-7509 Silicone Sealant is available in drums.

LIMITATIONS

Dow Corning 3-7509 Silicone Insulating Glass Sealant should not be used:

- As a primary or single seal in an insulating glass unit
- In insulating glass units intended for use in structural silicone glazing applications
- On zinc-galvanized spacer substrates
- On building materials that bleed oils, plasticizers or solvents – materials such as impregnated wood, oil-based caulks, green or partially vulcanized rubber gaskets and tapes
- On food contact surfaces – this product is not permitted for food-contact use in accordance with provisions of FDA Regulation 21 CFR 177.2600
- In below-grade applications
- In totally confined spaces (the sealant requires atmospheric moisture and must release by-product to cure)
- For continuous immersion in water
- For use with corrosion-sensitive coated glass

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.

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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.

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