Technical Data Sheet

DOWSIL™ Silicone 780 Plumbers and Roofers Sealant

One part high performance neutral cure silicone sealant offering plumbing and roofing materials

Features & Benefits

- One-component adhesive/sealant
- Cures at room temperature when exposed to moisture in the air
- Easy to use/ease of application compared to non-silicone materials
- Cures to a tough, flexible rubber
- Good/excellent unprimed adhesion to most common construction substrates
- Resistant/outstanding resistance to ozone, UV, moisture and temperature extremes
- Stable and flexible from -40°C to +150°C
- Non-slumping; can be used in vertical and overhead joints

Applications

- DOWSIL™ Silicone 780 Plumbers and Roofers Sealant adheres to a wide range of plumbing and roofing materials, like steel, zinc-coated steel, aluminum, brick, concrete, ceramic, fiberglass, baked enamel surfaces, painted finishes, select plastics etc

Typical Properties

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

Property	Unit	Result	
Available colors		Translucent	Off white, gray, black
As supplied			
Flow, sag or slump	mm	< 2	< 2
Extrusion rate[1]	g/min	287	409
Tack-free time	min	17	12
In depth cure at 25°C/50% RH for 1 day	mm	2.1	1.8
As cured 7 days at 25°C/50% RH			
Density	g/cm^3	1.02	1.39
Durometer hardness, Shore A		21	38
Tensile strength	MPa	1.5	1.2
Elongation at break	%	400	450

1. Extrusion rate: 3.2 mm orifice at 0.62 MPa.

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Description

DOWSIL™ Silicone 780 Plumbers and Roofers Sealant is high performance sealant designed for use in sealing sheet metal and aluminum roofing, flashing, guttering, wall cladding and rainwater accessories. It is a moisture curing one part neutral cure silicone rubber sealant.

Approvals/ Specifications

Meets the requirements of:

- AS/NZS 4020:2018

How to Use

Substrate Preparation
All surfaces must be clean and dry degrease and wash off any contaminants that could impair adhesion. Suitable solvents include isopropyl alcohol, acetone or methyl ethyl ketone.

A primer may be needed for optimum adhesion to some substrates based on testing conducted by the end user.

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.

DOWSIL™ Silicone 780 Plumbers and Roofers Sealant White has a usable life of 540 days, and DOWSIL™ Silicone 780 Plumbers and Roofers Sealant Black has a usable life of 360 days from the date of manufacture.

As DOWSIL™ Silicone 780 Plumbers and Roofers Sealant cures by reaction with moisture in air, keep the container tightly sealed when not in use. A plug of used material may form in the tip of a tube or cartridge during storage. This is easily removed and does not affect the remaining contents.

Limitations

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

DOWSIL™ 780 Silicone Plumbers and Roofers Sealant is not recommended:

- Do not use for structural glazing.
- Not recommended for continuous water immersion applications.
- Not recommended for use with marble and similar highly porous stone finishes where sealant may affect their appearance.
- Sealant may discolor copper and brass.
- Not recommended for expansion joints where high movement is expected.
- Not recommended for use in below-ground joints or trafficable joints where abrasion and physical abuse are encountered.

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Limitations (Cont.)

- Not recommended for use in the construction or sealing of aquariums.
- Cannot be painted, as paint will not adhere to sealant.
- Not recommended for use on polycarbonate plastic sheeting, suitability for use on other types of plastic should be tested prior to application.
- Not for use on freshly painted surfaces (enamel or solvent containing types).
- Should not be applied to materials that bleed plasticizers or solvents or release by-products that may inhibit cure, affect adhesion or discolor the sealant (e.g. bituminous-based adhesives and coatings).
- Do not clean or treat the sealant with materials, solvents or cleaning agents that may affect or discolor the sealant, particularly during sealant cure.
- Do not apply at temperatures below 4°C or when substrate surface temperatures exceed 50°C.
- Should not be used as an interior penetration fire stop sealing system.
- Should not be applied to surfaces in direct contact with food or drinking water. This sealant has not been tested to determine status under U.S. Food and Drug Administration regulations.
- Not recommended for direct contact on the reflective coatings on mirrors.
- Polyester powder coat paint exhibits a highly variable wax content on the surface. Ensure thorough solvent cleaning.
- Sealant cures by contact with moisture vapor in the air. Not recommended for use in closed or confined areas where sealant cure may be inhibited by lack of air.
- Do not use in the manufacture of insulated glass (IG) units.

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.

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Customer Notice

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dow.com

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