



DOWSIL™ 500 Fire Rated Sealant

FEATURES & BENEFITS

- Easy application over a wide temperature range – use in cold- weather applications without heating or mixing
- Non-sag
- Excellent unprimed adhesion to masonry and concrete substrates
- Suitable for new construction joints
- Low VOC content; LEED- compliant
- Excellent weathering properties and resistance to sunlight, rain, snow and temperature extremes

COMPOSITION

- Ultralow-modulus, one-part, neutral-cure silicone sealant

One-component silicone sealant tested in accordance with CAN/ULC S115, for use in firestop systems described in the Products Certified for Canada Directory (see Table 1 for system numbers/applicable rating information)

APPLICATIONS

- Wall and floor joint openings where a fire rating is required

TYPICAL PROPERTIES

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

Test	Property	Unit	Result
As Supplied			
ASTM ⁽¹⁾ C679	Tack-Free Time, 50% RH	minutes	35
	Curing Time, 50% RH at 25°C (77°F), 1/2" depth	days	7–14
	Full Adhesion, cured joint	days	14–21
ASTM D2202	Flow, Sag or Slump		None
CTM ⁽²⁾ 98 B	Working Time	minutes	10–20
	Installation Temperature	°C (°F)	-29 to 49 (-20 to 120)
EPA Method 24	VOC Content ⁽³⁾ , maximum inclusive	g/l	21
	exclusive	g/l	23
As Cured – After 7 days at 25°C (77°F) and 50% RH			
ASTM C661	Durometer Hardness, Shore A	points	15
ASTM D412	Tensile Strength, maximum	psi (kg/mm ²)	100 (0.070)
ASTM C794	Peel Strength	lb/in (kg/cm)	25 (4.46)

⁽¹⁾ ASTM: American Society for Testing and Materials.

⁽²⁾ CTMs (Corporate Test Methods) correspond to standard ASTM tests in most instances. Copies of CTMs are available upon request.

⁽³⁾ Based on South Coast Air Quality Management Division 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 Dow your request.

DESCRIPTION

Suitable for new construction or remedial applications, DOWSIL™ 500 Fire Rated Sealant provides excellent performance. The non-sag sealant provides easy application over a wide temperature range, enabling use in cold-weather applications without heating or mixing.

DOWSIL 500 Fire Rated Sealant features excellent unprimed adhesion to masonry and concrete substrates and excellent resistance to weather and temperature extremes.

DOWSIL 500 Fire Rated Sealant color options are: white or limestone.

APPROVALS/ SPECIFICATIONS

This sealant meets or exceeds the requirements of:

- ASTM Specification C920, Type S, Grade NS, Class 50, Use T₂ and NT
- CAN/ULC S115 (see Table 1 for specific system numbers and the applicable rating information)



HOW TO USE

1. Surface should be clean, dry and frost-free.
2. Apply sealant by pushing ahead of nozzle to fill the joint and “wet” the side surfaces.
3. Tooling should be done immediately after sealant application and before a skin forms (10–20 minutes). Do not disturb the completed joint for 48 hours to allow for cure.

Please contact your local sales application engineer for specific advice.

Table 1. CAN/ULC S115 – DOWSIL 500 Fire Rated Sealant for use in firestop systems described in the Products Certified for Canada Directory

System No.	Fire Rating, hours			
	F	FT	FH	FTH
C-BJ-0003	4	3	4	3

Figure 1. Vertical section – through-floor assembly

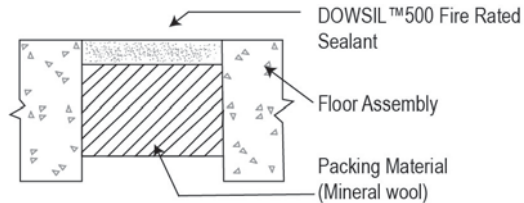
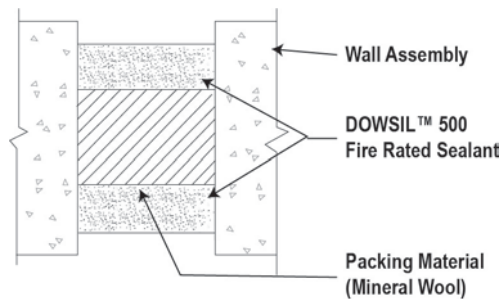


Figure 2. Horizontal section – through-wall assembly



1. **Floor or Wall Assembly** – Minimum 140 mm (5½ inch) thick reinforced lightweight or normal-weight 1,600–2,400 kg/m³ (100–150 lb/ft³) concrete. Wall also may be constructed of any UL Classified concrete blocks* having a minimum 4-hour fire-rated wall. Maximum width between floor sections or between wall sections is 152 mm (6 inches). See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. **Packing Material** – Minimum 114 mm (4½ inch) thickness of minimum 64 kg/m³ (4.0 lb/ft³) mineral wool batt insulation firmly packed into joint as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
3. **Fill, Void or Cavity Material* – Sealant** – Minimum 13 mm (½ inch) thickness of fill material applied within the joint, flush with top surface of floor or with both surfaces of wall.

UNRESTRICTED – May be shared with anyone

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USABLE LIFE AND STORAGE

When stored at or below 32°C (90°F), DOWSIL 500 Fire Rated Sealant has a shelf life of 12 months from date of manufacture. Refer to product packaging for "Use By" date.

PACKAGING INFORMATION

DOWSIL 500 Fire Rated Sealant is packaged in 20 fl oz (591 mL) E-Z Pak foil sausages that fit caulking guns, as well as in 2 gal (11.3 kg) bulk pails. It can be dispensed by many air-operated guns and most types of bulk dispensing equipment.

LIMITATIONS

DOWSIL 500 Fire Rated Sealant should not be applied:

- In structural applications.
- Below-grade or to materials that outgas, which can cause bubbling in curing sealant.
- To surfaces that are continuously immersed in water.
- For use as an interior penetration firestop sealing system.
- In totally confined spaces, because the sealant requires atmospheric moisture for cure.
- To surfaces that will be painted after application. Painting sealant will void fire rating.
- To surfaces in direct or indirect contact with food.
- To wet or frost-laden surfaces.
- In applications where solvents or primers are not fully dried prior to sealant application. Uncured sealant is very sensitive to many solvents, primers and cleaning agents; these may cause the sealant to remain uncured or tacky.

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.

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