Spectrem® 1

Single-Component, Moisture-Cure Silicone Sealant

Product Description

Spectrem® 1 is a high-performance, single-component, moisture-cure, ultra-low modulus silicone sealant.

Basic Uses

Spectrem® 1 is the ideal sealant for the most demanding dynamically moving joints. This includes material having a high coefficient of linear expansion such as aluminum curtainwalls, precast concrete panels, metal panels and window perimeters.

Features and Benefits

- Ultra-low modulus means high elasticity with movement accommodation of +100/-50%.
- With excellent adhesion to a variety of substrates, one product can be used for multiple applications on the same job from perimeter caulking to expansion joints.
- An excellent choice for sealing difficult-to-adhere-to substrates.
- Resistance to driving rain, ozone, ultra-violet light and temperature extremes safeguards against water penetration with exceptional weatherability in all climate zones.
- Wide variety of colors to choose from with custom colors and color matching also available for a particular project.
- No mixing required, so product is always ready to use for immediate application with conventional caulking equipment.
- Greenguard Gold certification ensures safety for use in the most sensitive indoor environments including hospitals and schools.

Availability

Immediately available from your local Tremco Sales Representative, Tremco Distributor or Tremco Warehouse.

Packaging

10.1-oz (300-mL) cartridges

20-oz (600-mL) sausages

2-gal (7.6-L) and 4.5-gal (17-L) pails

55-gal (208-L) drums

All colors are not available in all package sizes. Contact Tremco Customer Service for more information.

Colors

Aluminum Stone, Anodized Aluminum, Gray, Limestone, White, Off White, Precast White, Bronze, Buff, Dark Bronze, Ivory, Rustic Brick, Sandstone, Black, Adobe Tan, Champagne, and Charcoal.

Limitations

- Do not apply to damp or contaminated surfaces.
- Use with adequate ventilation.
- Not intended for continuous water immersion.

Substrate Preparation

Surface must be sound, clean, and dry. Contact surfaces should be free of loose dirt, dust, oils, and any other contaminants. Tremco recommends that air temperatures be 40 °F (5 °C) or above before applying any sealant. If colder weather is imminent, please refer to the Tremco Guide for Cold Weather Applications at www.tremcosealants.com.

Applicable Standards

Spectrem 1 meets or exceeds the requirements of the following specifications:

- ASTM C920 Type S, Grade NS, Class 100/50, Use NT, M, G, A and O
- ASTM C1248
- ASTM C1382
- ASTM E84
- U.S. Federal Specification TT-S-001543A (COM-NBS) Class A
- U.S. Federal Specification TT-S-00230C (COM-NBS) Class A, Type II
- CAN/CGSB 19.13-M87, MCG-2-40-B-N
- EIMA Test Method 300.01
- Spectrem 1 has been tested as a component of several wall assemblies meeting ASTM E2357, the Standard Test Method for Determining Air Leakage of Air Barrier Assemblies, and NFPA 285, the Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing Combustible Components.

Application

Spectrem 1 is easy to apply with conventional caulking equipment. Fill joint completely and tool. At 75 ˚F (23.9 ˚C), 50% RH, a durable skin will form within 10 to 30 min. Please visit www.tremcosealants.com for complete application instructions.

Joint Design

May be used in any joint designed in accordance with accepted architectural/engineering practices. Joint width should be 4 times anticipated movement, but not less than 1/4" (6 mm) wide.

Joint Backing

Closed-cell polyethylene backer rods or the Tremco sealant tape illmod® 600 is preferred as joint backing to control depth of sealant bead. Where depth of joint will prevent use of joint backing, an adhesive-backed polyethylene tape should be installed to prevent three-sided adhesion. Joint backing must be dry at time of the sealant application.

Sealant Dimensions

For joints 1/4" (6 mm) to 1/2" (13 mm) wide, the width to depth ratio should be equal. Joints 1/2" (13 mm) wide or greater should have a depth of 1/2" (13 mm). Minimum joint size is 1/4" x 1/4" (6 mm x 6 mm).

Compatibility and Continuity

Spectrem 1 Silicone Sealant is the recommended sealant for use when detailing over the ExoAir® Air Barrier system to ensure an airtight seal throughout the building envelope. Spectrem 1 has excellent adhesion to most polyethylene-backed, self-adhering air barrier membranes.

The performance of Spectrem 1 is exceptional when used on the polyethylene face of ExoAir 110, ExoAir TWF and the cured surface of ExoAir 120, ExoAir 220 and ExoAir 230.

Spectrem 1 is recommended for use with Tremco's Silicone Rubber extrusions and Tremco's patented solution, Proglaze® ETA (Engineered Transition Assembly), for sealing between challenging conditions such as the opaque wall air barrier and window/curtain wall assemblies. For more information on Proglaze ETA, ExoAir or Tremco's Silicone Rubber Extrusions, please visit the Tremco website at www.tremcosealants.com.

Warranty

Tremco warrants its Products to be free of defects in materials, but makes no warranty as to appearance or color. Since methods of application and on-site conditions are beyond our control and can affect performance, Tremco makes no other warranty, expressed or implied including warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE, with respect to Tremco Products. Tremco's sole obligation shall be, at its option, to replace, or refund the purchase price of the quantity of Tremco Products proven to be defective and Tremco shall not be liable for any loss or damage.

Please refer to our website at www.tremcosealants.com for the most up-to-date Product Data Sheets.

NOTE: All Tremco Safety Data Sheets (SDS) are in alignment with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) requirements.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
As Supplied:		
Curing Time		7 to 14 days
Flow, sag or slump inches	ASTM C639	Nil
Full Adhesion		14 to 21 days
Tack free time	ASTM C679	30 to 60 min
Tooling Time	Skin Formation	10 to 20 min
Extension		Plus 100
As Cured: After 14 days at 77 °F (25 °C), 50%RH		
Hardness (shore A)	ASTM C661	Plus 15
Peel Strength Aluminum and Glass	ASTM C794	5.2 kN/M (30 pli)
Stain & Color Change	ASTM C510 TT-S-001543A	None
Staining of Porous Substrates White Marble Primed & Unprimed	ASTM C1248	No Stain
Tear strength, die ("C")	ASTM D624	.7 kN/M (40 pli)
Tensile Strength at 100% Elongation	ASTM C1184	.24 MPa (35 psi)
Tensile Strength at Max Elongation	ASTM D412	1.38 MPa (200 psi)

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