

Spectrem® 1

Ultra Low-Modulus Silicone Joint Sealant

Product Description

Spectrem® 1 is an ultra low-modulus, high-performance, one-part, moisture-curing silicone joint sealant.

Basic Uses


Spectrem 1 has exceptional physical properties, making it an ideal sealant for sealing 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.

Spectrem 1 is formulated for expansion, control, lap joints, and EIFS applications. It also acts as an adhesive used in conjunction with Spectrem Simple Seal™. Simple Seal is used as a bridge seal in both new construction and restoration work. (Please refer to the Simple Seal data sheet for more on this product.)

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 110/110LT, 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 patent-pending 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.



SEALANT - WATERPROOFING & RESTORATION INSTITUTE

Issued to: Tremco Incorporated
 Product: Spectrem 1 Silicone Building Sealant
 C719: Pass Ext:+100% Comp:-50%

Substrate: Unprimed glass and aluminum and primed and unprimed mortar [The mortar substrates were primed with TREMprime Silicone Porous Primer].

C661: Rating 20
Validation Date: 2/11/2010 - 2/10/2015
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SEALANT VALIDATION
www.swrionline.org

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	Typical Value
As Supplied:		
Tack-free time	ASTM C679	30-60 min.
Curing time		7-14 days
Full Adhesion		14-21 days
Flow, sag or slump inches	ASTM C639	Nil
Tooling time		10-20 min.
As Cured: After 14 days at 77°F (25°C) and 50% R.H.		
Hardness (Shore A)	ASTM C661	15
Tensile strength at maximum elongation	ASTM D412	1.38 MPa (200 psi)
Tensile strength at 100% elongation	ASTM D412	.24 MPa (35 psi)
Tear Strength, die ("C")	ASTM D624	.7 kN/m (40 pli)
Peel Strength	ASTM C794	5.2 kN/m (30 pli)
Aluminum, Glass, Concrete		
Staining of Porous Substrates		
White Marble Primed & Unprimed	ASTM C1248	No Stain
Stain and Color change	ASTM C510 TT-S-001543A	None
Cyclic movement	ASTM C719	
Extension		+100
Compression		-50

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.

Packaging

10.1 oz. (300mL) cartridges, 20 oz. (600mL) sausages, 2 gal. (7.6L) and 4.5 gal. (17L) pails and 55 gal. (208L) drums.

Standard Colors

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

INSTALLATION

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 inch (6mm) wide.

Joint Dimensions

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

Surface Preparation

For good adhesion, the joint interface must be sound, clean and dry. Depending on the substrates, the joint surface may require a thorough wire brushing, grinding, sand blasting, solvent washing and/or primer.

Tooling & Cleaning

Tooling is recommended immediately after application to ensure firm, intimate contact with the joint interface. Dry tooling is preferred. Cleaning can be accomplished with solvents such as IPA or MEK while sealant is in an uncured state.

Joint Backing

Bond Breaking Tape

Closed cell polyethylene backer rods are 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.

Application

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

Maintenance

Damaged sealant can be repaired. Consult your Tremco Distributor or Representative for repair procedures.

Availability

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

Limitations

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

Warranty

Tremco warrants its Products to be free of defects in material, 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.

