



TECHNICAL DATA SHEET

VULKEM® SIL PRO SERIES

100% Silicone High-Performance
Sealant

PRODUCT DESCRIPTION

Vulkem® Sil Pro Series is a neutral-cure, 100% silicone, high-performance, non-sag sealant with exceptional movement capabilities that remains permanently flexible throughout the life of the sealant. Vulkem® Sil provides a waterproof, weatherproof seal for windows, doors, siding, gutters, vents, interior & exterior trim, countertops, backsplashes, joints, and more. Vulkem® Sil is also ideal for general glazing applications such as metal-to-metal sash joinery, heel and toe beads, cap beads, and perimeter beads. Capable of withstanding $\pm 50\%$ joint movement. Waterproof. UV Resistant. Won't shrink, crack, or yellow. Low VOC. Interior/exterior use. Vertical and horizontal applications.

BASIC USES

Vulkem® Sil Pro Series exhibits tenacious adhesion to glass, aluminum, steel, painted metals, vinyl, plastic, concrete, brick, stone, wood, granite, marble, ceramic and porcelain tile, and more. It provides a strong, durable, waterproof seal for a variety of applications including:

- Perimeter caulking (windows, doors, panels)
- Aluminum and vinyl siding
- Gutters and vents
- Interior and exterior trim
- Interior and exterior fixtures
- Interior and exterior thresholds
- Countertops and backsplashes
- Expansion and control joints
- Masonry
- CMU blocks
- General glazing applications*

FEATURES AND BENEFITS

Vulkem® Sil Pro Series provides long-term protection against the elements. It safeguards against water penetration with exceptional weatherability in all climates, and exhibits high resistance to driving rain, ozone, ultra-violet light, and temperature extremes.

- $\pm 50\%$ movement capability
- Superior tear resistance
- Water ready within 30 minutes of application
- Tenacious adhesion to a wide range of substrates
- Creates a waterproof, weatherproof seal that remains permanently flexible throughout the life of the sealant
- Provides resistance to driving rain, ozone, ultra-violet light, and temperature extremes
- Safeguards against water penetration with exceptional weatherability in all climates
- Freeze and sunproof
- Won't shrink, crack, or yellow
- Low VOC
- UV resistant
- Skin time: 10-15 minutes
- Tack free in 20-40 minutes

- Full cure in 3-5 days (for 1/4" bead at 75°F)
- Interior and exterior use
- Vertical and horizontal use

Vulkem® Sil Pro Series meets or exceeds the following specifications:

- ASTM C920 Type S, Grade NS, Class 50, Use NT, M, G, A, and O
- ASTM C1248
- ASTM C1184
- Conforms to ASTM C1184 Use G and O (Aluminum)

APPLICATION INSTRUCTIONS

Apply to sound, clean, dry, frost-free surface within application temperature range (40 °F to 90 °F). Ensure that any necessary backer rod is properly friction-fitted and that any primers have been applied. Unscrew and remove the nozzle. Use a knife to cut off the rounded end of the plastic tip on the cartridge, leaving the threads. Cut nozzle tip at a 45° angle to desired bead size and screw nozzle back onto cartridge. Fill the joint completely with a proper width-to-depth ratio, then tool to ensure intimate contact of sealant with joint substrates. Dry tooling is always preferred. Use a bead of sealant to cap the nozzle for storage.

Clean-up: use isopropyl alcohol (IPA) to remove uncured sealant.

LIMITATIONS AND CONSIDERATIONS

Vulkem® Sil Pro Series should only be used in approved applications. For best results, apply to clean, dry, frost-free surface within application temperature range (40 to 90 °F). Surfaces must be sound and clean. All release agents, existing waterproofing, dust, loose mortar, paints, other finishes, or field applied coatings must be removed. Joint width should be 4 times anticipated movement but not less than 1/4". For a cleaner finish, mask the sides of the joint with tape prior to filling.

Do not apply to damp or contaminated surfaces. Not intended for continuous water immersion. Use with adequate ventilation. Always review the Safety Data Sheet prior to use.

*Vulkem Sil Pro Series is not recommended for structural glazing applications.

Any reference to the life of a sealant is dependent on expected use in residential and light commercial applications, adherence to product instructions, recommended conditions during application, and adherence to industry standard practices. The life of the sealant is not guaranteed and will vary based on these conditions. To achieve the suggested life of performance, use the product as directed. When used as directed and under suggested conditions, the typical lifespan of Vulkem® Sil Pro Series 100% silicone sealant is 20 years.

STORAGE

Prior to use, store the product in its original, unopened, undamaged packaging in a clean, dry, protected location with temperatures between 40 to 110 °F (5 to 43 °C). Once the packaging is opened, the material will begin to cure. Preserving the sealant from developing an undesired cure can be achieved by promptly closing the sealant's container immediately after completion of use, this can be achieved by capping the nozzle with a bead of sealant.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL RESULTS
As Supplied:		
Flow, Sag or Slump Inches	ASTM C639	Nil
Sag	ASTM D2202	0 to 0.03 in (0 to 0.1 mm)
Tack Free Time	ASTM C679	20 to 40 min
Tooling Time	Skin Formation	10 to 15 min
As Cured, After 14 Days at 77°F (25°C), 50% RH		
Cyclic Movement	ASTM C719	±50%

PROPERTY	TEST METHOD	TYPICAL RESULTS
Elongation	ASTM D412	235 to 260%
Hardness (Shore A)	ASTM C661	37 to 40
Peel Strength, Aluminum & Glass	ASTM C794	16 to 22 plf (2.81 to 3.86 kN/m)
Staining of Porous Substrates, White Marble Primed & Unprimed	ASTM C1248	No Stain
Tear Strength, Die "C"	ASTM D624	35 to 40 pli (6.14 to 7.02 kN/m)
Tensile Strength at 100% Elongation	ASTM C1135	90 to 100 psi (0.62 to 0.69 MPa)
Tensile Strength at Max Elongation	ASTM D412	220 to 230 psi (1.52 to 1.59 MPa)
As Cured, After 21 Days at 77°F (25°C), 50% RH		
Ultimate Elongation	ASTM C1135	261%
Ultimate Tensile Strength	ASTM C1135	123 psi (0.85 MPa)

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

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