TremSEAL® S

A Low Modulus, High Performance Silicone Sealant

COMPOSITION:
TremSEAL® S is a low modulus, high performance, one part moisture curing silicone joint sealant. Outstanding cure stability and shelf life properties are designed into this product. TremSeal S is asbestos free.

BASIC USES:
TremSEAL S is capable of accommodating compression and expansion, especially when joint size limitations eliminate other types of sealants.

TremSEAL S has outstanding resistance to acid rains, caustics, extreme temperatures, ozone, and ultraviolet light - exposures where other sealants cannot perform. Can be used as a bond-breaker.

TremSEAL S is used as a lap sealant on Tremco CSPE (chloro-sulfonated polyethylene) single ply membranes. TremSEAL S is also well suited for control and lap joints in metal detailing.

LIMITATIONS:
- Not intended to be used over bituminous substrates.
- Not intended to be used under constant water immersion.
- Not intended for use in traffic bearing joints.
- Not intended for use on porous or decorative stone and other highly aesthetic applications. Some discoloration should be expected.

JOINT DESIGN
Construction Joints:
- Joint size should be four times anticipated movement.
- Maintain approximate 2:1 width to depth ratio. Sealant depth should not be less than 3/16″ (5mm) and not greater than 1/2″ (13mm) . See table below.
- Width-to-depth recommendations and sealant volume coverage:

Width	mm	Depth	mm	ft/gal	m/L	ft/case	m/cs
1/4″	6	3/16″	5	411	33	652	199
3/8″	9	3/16″	5	274	22	435	133
1/2″	13	1/4″	6	154	12.4	244	74
5/8″	16	3/8″	9	82	6.6	130	40
3/4″	19	3/8″	9	68	5.5	108	33
7/8″	22	3/8″	9	58.6	4.7	93	28
1″	25	1/2″	13	38.5	3.1	61	18

- Minimum joint size: 1/4″ (6mm) width by 3/16″ (5mm) depth.
- Consult your local Tremco Representative for specific design details.

CSPE Membrane seams:
- Bead size should be 1/2″ (13mm) width by 1/8" (3mm) depth.
- Sealant volume coverage:

Width	mm	Depth	mm	ft/gal	m/L	ft/case	m/cs
1/2"	13	1/8"	3	308	24.8	489	149

GRADE: Gun.

PACKAGING: Available in 300ml (10.15 fl. oz.) cartridges, 20 cartridges/case, 1.6 gal/case.

STORAGE LIFE: One year when stored below 80°F. (26.7°C)

COLORS: White, Aluminum/Stone, Bronze, Black.

APPLICABLE STANDARDS: TremSEAL S is supplied in a non-sag formulation. Meets the requirements of U.S. Federal Specifications for silicone building sealants, Class A one-component building sealants, applicable ASTM tests, and Tremco standards.
TT-S-00230C (COM-NBS), Type II, Class A
TT-S-001543A (COM-NBS), Class A
ASTM C 920-95, Type S, Grade NS,
Class 25, Use NT, M, G, A, and 0.

APPLICATION DATA
SURFACE PREPARATION: Joint interfaces must be clean, dry and free of any foreign matter.

Some substrates may require grinding, cutting, or mechanical abrading to produce a sound, clean, dry surface for sealant application. Any surface dirt, dust, and loose particles must be removed from the joint prior to sealant application.
Wipe metal, glass, and other nonporous surfaces with Solvent followed by a dry wipe with a clean lint-free cloth before solvent evaporates. A trial application of solvent is recommended over applied coating or finish to ensure there is no adverse reaction. Wipe CSPE membrane lap seams with Toluene prior to application of TremSEAL S. If necessary, TremSEAL S can be installed below freezing provided surfaces are clean, dry and frost-free. For best performance, apply sealant above 40°F. (4°C).

Product Advantages

Features	Benefits
Exceptional movement capability	• Can be used in undersized joints wothout costly procedures to enlarge joint area.
Wide service temperature range (-65°F to 300°F)	• Can be used where other sealants would fail, such as stacks and steam exposure.
Cartridge stability	• No special cold storage required.
Unaffected by ozone, most acids, cleaners, and caustics.	• Can be used in numerous areas where most other sealants cannot perform.
Stable curing system	• Ensures product reliability.
Skins quickly with outstanding tear strength	• Can be used in areas where other silicones are vulnerable to damage.

PRIMING: Some materials with special surface characteristics, finishes or coatings may require a primer. A trial application is recommended.

PRIMERS: Tremco Silicone Metal Primer #20
Tremco Silicone Porous Primer #23
See Data Sheets.

JOINT BACKING/BONDBREAKER: Joint backing must be used to control recommended joint depth and prevent three-sided adhesion. Joint backing must be dry. Where joint design or depth will prevent use of joint backing, an approved adhesive-backed polyethylene bond-breaker tape must be installed to prevent three-sided adhesion. Back joints with round, closed-cell polyethylene, non bleeding neoprene or butyl rod under 30% compression. Do not install more joint backing or bondbreaker tape than can be sealed during same day.

APPLICATION: TremSEAL S can be applied with conventional hand or air powered caulking equipment. Apply in a continuous operation with adequate pressure to fill joint to proper width and depth. Do not overfill.

CURE RATE:
Skin-over: 10 to 30 minutes.
Tack-free (firm skin): 30 to 60 minutes.
Through cure: 7 to 14 days.
Higher temperatures accelerate cure.
Lower temperatures extend cure.

TOOLING: Immediately after application, tool sealant to ensure firm, full contact with joint interfaces. Dry tooling is preferred. Care must be exercised to avoid contamination of open joints below.

MASKING: Should masking be required, remove masking tape immediately after tooling and before sealant skins.

CLEANING: While sealant is uncured, clean equipment and tools. Xylene or toluene.
Non-porous surfaces: Immediately remove excess sealant with solvent.
Porous surfaces: Allow sealant to develop initial cure, then remove excess by abrasion or other mechanical means. Caution should be exercised to maintain original surface texture.

PRECAUTIONS: Users must read container labels and Material Safety Data Sheets for health and safety precautions prior to use.

AVAILABILITY AND COST: Contact your local Tremco Representative for pricing and availability. For name and number of your representative, call 216/292-5000 - Roofing Division. In Canada, 416-421-3300.

MAINTENANCE: Your Tremco Representative can provide effective maintenance procedures which may vary, depending upon specific conditions. Periodic inspections, early repairs, and preventative maintenance are all sound procedures.

GUARANTEE/WARRANTY: Tremco, Inc. warrants TremSEAL S to be free of defects and to meet published physical properties when cured and tested according to ASTM and Tremco standard. Under this warranty, we will provide at no charge, TremSEAL S in standard packaging to replace any TremSEAL S proven to be defective when applied according to our written instructions, and in applications recommended by us as suitable for TremSEAL S. THIS IS BUYER'S SOLE AND EXCLUSIVE REMEDY.

All claims concerning product defects must be made in writing within twelve (12) months of shipment. The absence of such claims in writing during this period will constitute a waiver of all claims with respect to such product.

This warranty shall be IN LIEU OF any other warranty, express or implied, including but not limited to, any implied warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSES.

Physical Performance Characteristics

TremSEAL S

Property	Typical Value	Test Method
As Supplied:		
Volatile organic compound (less water, less exempt solvent)	0 g/L	ASTM D 3960-89
Tack - free time	30-60 minutes	ASTM C 679-87
Cure time @ 77°F, 50% RH	7-14 days	TRC 521*
Full adhesion	14 - 21 days	TRC 521*
Flow, sag, or slump	Nil	ASTM C 639-83
Working time	10 - 30 minutes	ASTM C 639-83
As Cured: (14 days @ 77°F, 50% RH)		
Hardness (Shore A)	15	ASTM C 661-86
Tensile strength @ maximum elongation	200 psi (1379kPa)	ASTM D 412-87
Tensile strength @ 100% elongation	35 psi (241kPa)	ASTM D 412-87
Tear resistance (Die C)	40 pli (7kN/M)	ASTM D 624-86
Peel strength: Aluminum, glass, concrete	30 pli (5.3 kN/M)	ASTM C 794-80 (1986)
Stain & color change	None	ASTM C 510-77(1983) FS TT-S-001543A
Ozone resistance	Excellent	–
Joint movement capability		ASTM C719-86
Extension	+ 100%	
Compression	- 50%	
UV Resistance	Excellent	ASTM C794-80(1986)

*TRC - Tremco Research Center - Standard Test (procedure available)

TECHNICAL SERVICES: Your local Tremco Representative, working with the Technical Service Staff, can help analyze conditions and needs to develop recommendations for special applications. The services of the Tremco Research Center, which has earned a unique reputation in weatherproofing technology, complement and extend the services of the Tremco Technical Service Staff.

STATEMENT OF POLICY AND RESPONSIBILITY: Tremco takes responsibility for furnishing quality materials and for providing specifications and recommendations for their proper installation.

As neither Tremco itself nor its Representatives practice architecture or engineering, Tremco offers no opinion on, and expressly disclaims any responsibility for the soundness of any structure on which its products may be applied. If questions arise as to the soundness of a structure or its ability to support a planned installation properly, the Owner should obtain opinions of competent structural engineers before proceeding. Tremco accepts no liability for any structural failure or for resultant damages, and no Tremco Representative is authorized to vary this disclaimer.

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