

SG490

1PT STRUCTURAL GLAZING SILICONE

TREMCO
Lasting Performance



KEY BENEFITS SUMMARY

- One-component
- Short curing time
- Excellent adhesion with or without primer, as defined by the suitability test results
- Outstanding resistance to ultraviolet exposure

PRODUCT INFORMATION

Description

SG490 is a high modulus, one-component, acetic silicone sealant with a high elastic modulus, which develops, with or without primer, excellent adhesion to substrates such as: anodized aluminum, stainless steel and coated aluminium.

Areas of use

SG490 is ideally suited for structural glazing applications (SSG). Its implementation is subject to compliance with the local official procedures in place and compliance with the SSG specifications. It has been specially designed for applications in the curtain walls joining workshop.

The relative humidity must not exceed 80% during application.

Packaging

- Box of 20 x 310 ml cartridges
- Box of 20 x 600 ml sausages
- 210 kg drum

Storage

In dry conditions between +5°C and +25°C.

Shelf life

In original unopened packaging:
18 months.

Chemical resistance

- Excellent resistance to common facade cleaning products.
- Resistant to dilute bases, salt spray and short-term exposure to all common solvents and hydrocarbon-based products (may cause a softening/swelling).

Implementation

- Joint Design Consideration:
Structural glazing operations should only be carried out after consultation with tremco illbruck Technical representative.

Joint design for SGG applications should follow ETAG 002 principles and project based calculations checked by tremco illbruck.

- Compatibility:
The compatibility of any accessory (such as spacer tapes, gaskets, setting block, etc.) and related products (such as weather sealing or IG unit perimeter sealant, etc.) must have been tested with SG490.

Please contact tremco illbruck Technical Service for more information about the compatibility testing prior to commencement of application.

- Application methods:
When applying SG490 with pumps, we recommend using a circuit lined with PTFE to minimize moisture penetration.

Proper Factory Production Control (FPC) are necessary to ensure the quality of the manufacturing process.

The monitoring of this process is one of the conditions for obtaining the SSG PASS (PASS VEC) in compliance with specification CSTB 3488 v.2. (More details are available in the identification sheet of May 2012, v.5).

Tooling of silicone sealant must be done within the pot life time.

■ Handling of units:

Handling of frames or units with freshly applied material is possible up to 24 hours after application. After this, the glass or frames must not be moved for 7 days (for a bonding section of 6/10 mm). Stacking of units is prohibited! On-site installations can be carried out from the tenth day after manufacturing.

FPC and adhesion test results must be reviewed before installation. (More details are available in the identification sheet of May 2012, v.5).

■ Preparation

■ Surface preparation:

Surface preparation must be carried out in accordance with the recommendations of the project suitability tests.

Surfaces must be clean, dry and free of grease or finger marks before the mastic is applied.

■ Substrate cleaning:

Substrates such as metals, glass and other materials must be cleaned using a clean tissue soaked in solvent, then using a clean, dry tissue (double tissue technique). Use of MEK or MIBK is recommended for some substrates (such as anodized aluminium, stainless steel) and IPA for other substrates (such as coated aluminium or glass).

■ Substrate priming:

Many substrates may require application of SG073 to optimize adhesion performance.

■ Cleaning

■ Tools must be cleaned immediately after use with MEK or IPA.

■ Cured sealant can only be removed mechanically.

■ Compliance and Approvals

■ SG490 has the European Technical Assessment (ETA) 05/0005 as well as the CE marking according to the guide EOTA ETAG 002.

■ The product is also certified SNJF-VEC.

■ Safety precautions

The Technical and Safety Data Sheets must be read and understood before use.

■ Service

Our team of technicians remains at your disposal for any further information.

■ Note

The information in this document is provided for informational purposes and are non-binding. Technical data are not expressly warranted characteristics of the goods.

Because the variety of material used, the variety of application processes and the variety of conditions of use are beyond our control, preliminary tests are strongly recommended before any order.

The information and illustrations being reproduced on this document are based on features in progress and on our experience at the time of May 2015.

The manufacturer reserves the right of modifying the technical characteristics of its products at any time.

The warranty policy of these products is exclusively governed by our general terms and conditions of sales. tremco illbruck can not be held liable based on the general information given by this document.

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TECHNICAL DATA

CHARACTERISTICS	STANDARDS	VALUES
Sealant type		one-component acetic silicone
Color		Black
Density*		1.03
Tack-free time ¹⁾		5 to 10 minutes
Curing rate ¹⁾		24 hours: 3 mm min. 7 days: 10 mm min.
Hardness Shore A*	EN ISO 868	7 days: 20 min.
Tensile stress at break*	EN ISO 8339	1.00 MPa
Design tensile stress*	ETAG 002	0.14 MPa
Design shear stress under permanent load*	ETAG 002	0.007 MPa
Secant modulus at 12.5% elongation K12.5*	EN ISO 8339	1.98 MPa
Elongation at break*	EN ISO 8339	250%
Elastic recovery (after 25% extension over 24 hours)	EN ISO 7389	>95%
Compression resistance*	EN ISO 11432	30% 0.65 MPa
Recommended application temperature		+15°C to +35°C
Service temperature range		-50°C to +150°C

¹⁾At 23°C, 50% relative humidity

*Typical values

At low or high temperatures, polymerization time and speed may vary. Contact us in advance for large application and storage temperature differences.



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