



**Product Data Sheet**  
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Sikasil WS-290 FPS

# Sikasil® WS-290 FPS

Ultra low modulus, neutral cure, field pigmentable silicone sealant

Construction

<b>Description</b>	Sikasil WS-290 FPS is a field pigmentable, low to no bleed, low modulus, one-component plus color pack, non-sag, elastomeric, neutral cure silicone sealant. Sikasil WS-290 FPS performs exceptionally well under dynamic conditions due to its ultra-low modulus, high extension/compression, recovery properties and strong adhesion to most building materials. Sikasil WS-290 FPS accommodates long-term movement of +100/-50% in properly designed joints and is particularly well suited for use in Exterior Insulation Finish Systems (EIFS). Meets the requirements of ASTM C-920, Type S, Grade NS, Class 100/50, Use NT, M, G, A, O; TT-S-00230C, Type II, Class A; TT-S-001543A, Class A; CAN/CGSB-19-13-M87, AAMA 808.3.
<b>Where to Use</b>	Sealing expansion and control joints in precast concrete panels and metal curtain walls. <ul style="list-style-type: none"> <li>■ As a weatherseal in glass to glass butt joint glazing</li> <li>■ As a weatherseal in nonstructural glazing applications, including cap, toe and heel beads</li> <li>■ Exterior Insulation Finish Systems (EIFS) and numerous other areas requiring a high-performance sealant.</li> </ul>
<b>Application</b>	<ul style="list-style-type: none"> <li>■ Field pigmentable sealant</li> <li>■ Unaffected by most atmospheric conditions</li> <li>■ Non-staining</li> <li>■ Joint movement +100/-50%</li> <li>■ Excellent adhesion</li> <li>■ One-component, plus color pack</li> <li>■ Excellent gunnability in all temperatures</li> <li>■ Ultra low modulus</li> </ul>
<b>Packaging</b>	10.1 fl.oz. (.300 ml) plastic cartridges, 20 fl.oz. (.592 ml) sausages, 1.5 gal of material in 2 gal. (7.57 L) pails

### Typical Data

RESULTS MAY DIFFER BASED UPON STATISTICAL VARIATIONS DEPENDING UPON MIXING METHODS AND EQUIPMENT, TEMPERATURE, APPLICATION METHODS, TEST METHODS, ACTUAL SITE CONDITIONS AND CURING CONDITIONS.

<b>Shelf Life</b>	12 months in original unopened cartridges.
<b>Storage Conditions</b>	Store in unopened containers at temperatures lower than 80°F (27°C).
<b>Colors</b>	White, Colonial White, Aluminum, Limestone, Black, Bronze, Medium Bronze. Custom colors available on request.
<b>VOC Content</b>	29 g/L

#### Uncured Properties at 77°F (25°C), 50% R.H.

<b>Tool Time (Initial Skin)</b>	30 minutes (higher temperatures and/or humidity will shorten this time)
<b>Cure Time</b>	7-14 days
<b>Flow, Sag, Slump</b>	no sag
<b>Full Adhesion</b>	7-14 days
<b>Tack Free Time</b>	50 min.

#### Cured Properties after 7 days at 77°F (25°C), 50% R.H.

<b>Dynamic Movement Capability (ASTM C-719)</b>	+100%, -50%
<b>Elongation (ASTM D-412)</b>	1000%
<b>Shore A Hardness (ASTM C-661)</b>	12
<b>Ozone/UV Resistance (weatherometer)</b>	Excellent
<b>Peel Strength (ASTM C-794)</b>	20-40 pli
<b>Staining, Color Change (ASTM C-510)</b>	none
<b>Staining on Porous Substrates (ASTM C-1248)</b>	no staining
<b>Stress @ 100% (ASTM D-412)</b>	42 psi (0.29 MPa)
<b>Service Temperature Range</b>	-80°F to 350°F
<b>Tensile Strength (ASTM D-412)</b>	165 psi (1.14 MPa)



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Coverage	10.1 oz Cartridge: Yield in Linear feet				20 oz Sausage: Yield in Linear feet				1 gallon: Yield in Linear feet			
	Depth	1/4"	3/8"	1/2"	Depth	1/4"	3/8"	1/2"	Depth	1/4"	3/8"	1/2"
Width	1/4"	24.3			1/4"	48.1			1/4"	307.9		
	3/8"	16.2	10.8		3/8"	32.1	21.4		3/8"	205.3	136.8	
	1/2"	12.1	8.1	6.1	1/2"	24.1	16.0	12.0	1/2"	153.9	102.6	77.0
	3/4"	8.1	5.4	4.0	3/4"	16.0	10.7	8.0	3/4"	102.6	68.4	51.3
	1"			3.0	1"			6.0	1"			38.5
	1.25"			2.4	1.25"			4.8	1.25"			30.8
	1.5"			2.0	1.5"			4.0	1.5"			25.7

## How to Use

### Surface Preparation

The substrate must be clean, dry, frost free, sound and free of any oils, greases or incompatible sealers, paints or coatings that may interfere with adhesion.

**POROUS SUBSTRATES** – clean by mechanical methods to expose a sound surface free of contamination and laitance.

**NON-POROUS SUBSTRATES** – for cleaning non-porous substrates, use two rag wipe method using xylene or an approved commercial solvent. Allow solvent to evaporate prior to sealant application.

### Priming

Sikasil WS-290 FPS is designed to obtain adhesion without the use of a primer; however, certain substrates may require a primer. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Technical Data Sheet for Sikasil 2100 primer and contact Technical Service for additional information.

### Application

The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2 inch (13mm) and the minimum is 1/4 inch (6mm). To control joint depth, use closed cell polyethylene, non-gassing polyolefin or open cell polyurethane backer rod. If joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion. Closed cell backer rod should be 25% larger than joint width; do not compress more than 40%. Open cell should be compressed 40%. Do not use open cell rod in horizontal on grade joint or with E.I.F.S. When installing during time of large temperature swings such as spring or fall, and in joints designed for movement greater than  $\pm 25\%$ , be aware of the significant joint movement before cure, may cause aesthetic issues such as ripples in the sealant surface. Performance will not be affected.

Ready to use, apply using professional caulking gun. Do not open product container until preparation work has been completed. Apply sealant using consistent, positive pressure to force sealant into the joint. Tool sealant to create a concave joint shape and maximum adhesion. Dry tooling is recommended. DO NOT use soapy water or other liquids when tooling.

### Tooling & Finishing

All joints should be masked to ensure a neat appearance and prevent sealant applied outside the joint. Place nozzle of the gun into bottom of joint and fill entire joint making complete contact with joint sides. Keep the nozzle in the sealant, continue with a steady flow of sealant preceding the nozzle to avoid air entrapment. Tool the sealant slightly concave using dry-tooling techniques. Do not tool with soap or detergent and water solutions.

### Limitations

- Do not allow sealant to come in contact with solvent during cure.
- Do not allow sealant to come in contact with curing polyurethane sealants during cure.
- Not intended for immersion.
- Sealant may be applied below freezing temperatures if substrates are completely dry, frost free and clean. Contact Technical Service for more information.
- Do not apply when substrate temperatures are below  $-20^{\circ}\text{F}$  or above  $130^{\circ}\text{F}$ .
- Not intended for structural glazing.
- Not recommended for horizontal vehicular traffic.
- Do not apply to surfaces that will be painted as sealant surface will not hold paint.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free and cure rates.
- Allow treated wood to age six months before application.
- Brass and copper may be discolored. Test apply prior to application.
- Test sensitive substrates, such as mirror backings, for compatibility before use.

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KEEP CONTAINER TIGHTLY CLOSED. KEEP OUT OF REACH OF CHILDREN. NOT FOR INTERNAL CONSUMPTION. FOR INDUSTRIAL USE ONLY. FOR PROFESSIONAL USE ONLY.

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety related data. Read the current actual Safety Data Sheet before using the product. In case of emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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