

Sikasil®-728 NS

Non-sag, ultra low modulus, highway/parking garage, neutral cure silicone sealant

Description	Sikasil 728 NS is a high performance, non-sag, one-component, ultra low modulus elastomeric, neutral cure silicone sealant. Meets the requirements of ASTM D-5893: ASTM C-920, Type S, Grade NS, Class 100/50, Use NT, T, M, G, A, O with ultra low Shore Hardness: TT-S-00230C, Type II, Class A; Class A.
Where to Use	<p>Construction Application</p> <ul style="list-style-type: none"> ■ Highway joints ■ Bridges ■ Stadiums ■ Parking garages ■ Plaza decks ■ Driveways ■ Decks ■ Expansion joints ■ Saw cut joints <p>Substrate</p> <ul style="list-style-type: none"> ■ Concrete, steel, glass, aluminum, ceramic, masonry, brick, stone and granite
Advantages	<ul style="list-style-type: none"> ■ Durable ■ Ideal for cold climates ■ Excellent flexibility for extreme high and low temperature conditions ■ Excellent flexibility for dynamic joint movement ■ Bonds to most substrates without priming; best performance obtained in horizontal joints when primed ■ Ready to use, labor cost reduction ■ Non sag, excellent for vertical joints ■ All season ease of application ■ Excellent for use on all types of concrete joints ■ Jet fuel resistant ■ Resistant to road salts
Packaging	4.5 gal (17 l) in a 5 gal pail; 52 gal (197 l) in 55 gal drum. 29 oz. cartridge/12 per case.

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.

Shelf Life	When stored in the original, unopened containers at or below 90°F (32°C), shelf life is one year. A product skin may form in pails and drums, remove prior to use.
Storage Conditions	Store in unopened containers at temperatures at or below 90°F (32°C).
Colors	Limestone and Charcoal Gray.
<u>Uncured Properties at 77°F (25°C), 50% R.H.</u>	
Cure Time (MNA Method)	1/16" / 24 hours
Slump (ASTM D-2202)	none
Skin-over Time (MNA Method)	15 - 25 min.
Tack Free Time (ASTM C-679)	30 - 40 min.
Extrusion Rate (ASTM C-1183 modified)	200 g/min. 1/8" orifice @ 90 psi
Rheological, Vertical (ASTM C-639)	non-sag @ 120°F (49°C)
VOC Content	1.64% by wt., 21 g/l, 0.18 lbs/gal
Service Temperature	-80°F to 350°F (-62.2°C to 176.6°C)
<u>Cured Properties after 7 days at 77°F (25°C), 50% R.H.</u>	
Movement Capability (ASTM C-719)	+100%, -50%
Elongation at Break (ASTM D-412)	1000%
Hardness,	
Shore OO (ASTM C-661 & ASTM D-2240)	50
Shore A (ASTM C-661 & ASTM D-2240)	5-10
Stress at 100% (ASTM D-412)	35 psi (0.24 MPa)
Peel Strength (ASTM C-794)	40 pli
Tensile Strength (ASTM D-412)	175 psi (1.20 MPa)
Bond Durability on glass, (ASTM C-719)	+100%, -50%
aluminum and concrete	
Weathering Resistance	Excellent
Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.	



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Coverage

1 gallon: Yield in Linear feet					29 oz Cartridge: Yield in Linear feet				
Depth		1/4"	3/8"	1/2"	Depth		1/4"	3/8"	1/2"
Width	1/4"	307.9			Width	1/4"	69.8		
	3/8"	205.3	136.8			3/8"	46.5	31.0	
	1/2"	153.9	102.6	77.0		1/2"	34.9	23.3	17.4
	3/4"	102.6	68.4	51.3		3/4"	23.3	15.5	11.6
	1"			38.5		1"			8.7
	1.25"			30.8		1.25"			7.0
	1.5"			25.7		1.5"			5.8

How to Use Installation

Joint Design: The number of joints and the joint width should be designed for a recommended joint movement of +25% and -25% at time of installation. The depth of the sealant should be 1/2 the width of the joint. The maximum depth is 1/2 inch (13 mm) and the minimum is 3/8 inch (10 mm). For joints greater than 1 inch (25.4 mm), do not exceed 1/2 inch (13 mm) in depth.

Joint Backing: To control joint depth, use closed cell polyethylene or non-gassing polyolefin 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%.

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.

Primer

Sikasil-728 NS is designed to obtain adhesion without the use of a primer; however, best results are obtained when horizontal joints are primed. Test by applying the sealant and/or primer sealant combination to confirm results and proposed application methods. Refer to Technical Data Sheet for Sikasil Primer 2100 and contact Technical Service for additional information.

Application

Ready to use, apply using professional caulking gun or dispensing equipment. Do not open product container until preparation work has been completed. Apply sealant using consistent, positive pressure to force sealant into the joint. Apply the sealant so that it is recessed 1/8 inch (3 mm) below the surface. For parking deck joints, recess 1/4 inch (6 mm). For highway joints, recess 1/2 inch (13 mm). 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. Remove excess sealant from substrate while uncured using a commercial solvent, such as xylene. Strictly follow the solvent manufacturer's warnings and instructions for use. Cured sealant may be removed by mechanical means.

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.
- Not recommended for structural glazing applications.
- Test recommended for absorptive surfaces such as granite, limestone or marble where staining may occur.
- Do not apply to substrates that bleed oil, plasticizers or solvent.
- Do not apply to damp or wet substrates.
- Lower temperature and humidity will extend tack free time and cure rates.
- Allow treated wood to age six months before application.

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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.

Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Safety Data Sheet which are available online at <http://usa.sika.com/> or by calling Sika's Technical Service Department at 800-933-7452. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Safety Data Sheet prior to product use.

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