BUILDING TRUST

PRODUCT DATA SHEET

Sikasil®-728 NS

NON-SAG, ULTRA LOW MODULUS, HIGHWAY/PARKING GARAGE, NEUTRAL CURE SILICONE SEALANT

PRODUCT 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.

USES

Construction Application
- Highway joints
- Bridges
- Stadiums
- Parking garages
- Plaza decks
- Driveways
- Decks
- Expansion joints
- Saw cut joints

Substrate
- Concrete, steel, glass, aluminum, ceramic, masonry, brick, stone and granite

CHARACTERISTICS / ADVANTAGES

- 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

PRODUCT INFORMATION

Chemical Base	Neutral cure silicone
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
Color	Limestone and Charcoal Gray

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).
Volatile organic compound (VOC) content	1.64 % by wt., 21 g/l, 0.18 lb./gal.

TECHNICAL INFORMATION

Shore Hardness	50 5-10	Shore OO (after 7 days) Shore A (after 7 days)	(ASTM C-661, ASTM D 2240)
Tensile Strength	175 psi (1.20 MPa)		(ASTM D-412)
Tensile Stress at Specified Elongation	35 psi (0.24 MPa) at 100 % elongation		(ASTM D-412)
Elongation at Break	~1 000 %		(ASTM D-412)
Adhesion in Peel	~7 N/mm (40 lbf/in) on mortar substrate		(ASTM C-794)
Movement Capability	+100 % / −50 %		(ASTM C-719)
Resistance to Weathering	Excellent		
Service Temperature	−80 °F min. (-62 °C) / +350 °F max. (177 °C)		

Joint Design

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 %.

APPLICATION INFORMATION

Coverage

1 gallon: Yield in Linear feet

Width/Depth	1/4''	3/8''	1/2''
1/4''	307.9		
3/8''	205.3	136.8	
1/2''	153.9	102.6	77.0
3/4''	102.6	68.4	51.3
1''			38.5
1.25''			30.8
1.5''			25.7

29 oz Cartridge: Yield in Linear feet

Width/Depth	1/4''	3/8''	1/2''
1/4''	69.8		
3/8''	46.5	31.0	
1/2''	34.9	23.3	17.4
3/4''	23.3	15.5	11.6
1''			8.7
1.25''			7.0
1.5''			5.8

Backing Material	Use closed cell, polyethylene foam backing rods 25 % larger than the joint width. If the joint depth does not allow for a backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion.	
Sag Flow	none	(ASTM D-2202)
Cure Time	1/16” / 24 hours	(MNA Method)
Skin Time	15–25 minutes	(77 °F (25 °C) / 50 % R.H.) (MNA Method)
Tack Free Time	30–40 minutes	(77 °F (25 °C) / 50 % R.H.) (ASTM C-679)

APPLICATION INSTRUCTIONS

SUBSTRATE 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 METHOD / TOOLS

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.

BASIS OF PRODUCT 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.

OTHER RESTRICTIONS

See Legal Disclaimer.

ENVIRONMENTAL, HEALTH AND SAFETY

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

LEGAL DISCLAIMER

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

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