

Product Data Sheet
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Sikasil® 728 NS

Sikasil®-728 NS

Non-sag, ultra low modulus, neutral cure silicone sealant for pavements

Product Description

Sikasil-728 NS is a non-sag, one-component, ultra low modulus elastomeric, neutral cure silicone sealant for sealing of joints in pavements according to ASTM D-5893.

Uses

- Highways
- Airports
- Bridges
- Parking structure top decks
- Expansion joints
- Saw cut joints

Characteristics / Advantages

- Ready to use
- Very high movement capability (ASTM C-719) +100%, -50%
- Excellent flexibility for use in extremely high and low temperature climates
- Very good adhesion, especially to concrete
- Extremely long service life due the outstanding UV resistance

Approval / Standards

Meets the requirements of
ASTM D-5893;
ASTM C-920, Type S, Grade NS, Class 100/50;
TT-S-00230C, Type I; Class A;
TT-S-001543A, Class A

Environmental Information

Specific Characteristics

VOC Content 1,64% by wt

Specific Ratings

LEED® EQc 4.1	SCAQMD, Rule 1168	BAAQMD, Reg. 8, Rule 51
passes	passes	passes

Construction



Product Data

Form

Colours Limestone and Charcoal Gray

Packaging 858ml cartridge
17 l pail
197 l drum.
Special packaging available upon request

Storage

Storage Conditions / Shelf-Life 12 months from date of production if stored in undamaged and unopened original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

Technical Data

Chemical Base 1-part, neutral curing silicone.

Density ~ 1.28 kg/l (DIN 53 479)

Skinning Time ~ 2.5 minutes (+23°C / 50% r.h.)

Curing Rate ~ 4.0 mm / 24 h (+23°C / 50% r.h.)

Joint Dimensions Min. width = 10 mm / max width = 25 mm

Sag Flow 0 mm (DIN EN ISO 7390)

Service Temperature -60°C to +170°C

Mechanical / Physical Properties

Tensile strength ~ 0.2 N/mm² (ASTM D 412 @150%)

Tear Strength ~ 3,0 N/mm (DIN 53 515)

Shore 00 Hardness ~ 40 (ASTM C 661 & ASTM D 2240)

Shore A Hardness ~ 3 (DIN 53 505)(ASTM C 661 & ASTM D 2240)

E-Modulus ~ ~ 0.2 N/mm² at 100% elongation (DIN EN ISO 8340)

100% Modulus ~ 0.25 N/mm² (ASTM D 412)

Elongation at Break ~ 1000 % (ASTM D 412)

Elongation at Break ~ 9000 % (DIN 53 504)

Resistance

Chemical Resistance Resistant to water, road salts, seawater, diluted alkalis, cement grout and water dispersed detergent.
Temporary resistant against jet fuel spillage
Not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated hydrocarbons.

System Information

Application Details

Consumption / Joint Design

Joints:

The joint width must be designed for a recommended movement capability of +/-25% at time of installation. In general the joint width must be between 10 mm minimum and 25 mm maximum. The depth of the sealant should be 0,5-0,8 of the width of the joint. The maximum depth is 13 mm and the minimum is 10 mm.

The silicone sealant joint must be recessed: 13 mm for highway and airport joints or 6 mm for joints in car parks since Sikasil®-728 NS is not trafficable. For floor joint sealing in industrial floors or flush joints in pedestrian areas please use Sikaflex® PRO-3 instead.

Joints with a width of less than 10 mm are for crack control and therefore non movement joints. Relevant is the joint width at the time of application of the sealant (guide value of + 10°C).

For a temperature differential of 40°C:

Joint distance	2 m	4 m	6 m	8 m	10 m
Min. joint width	10 mm	10 mm	10 mm	15 mm	20 mm
Thickness of sealant	10 mm	10 mm	10 mm	12 mm	13 mm

For a temperature differential of 80°C

Joint distance	2 m	4 m	5 m	6 m
Min. joint width	10 mm	15 mm	18 mm	20 mm
Thickness of sealant	10 mm	12 mm	13 mm	13 mm

All joints must be properly designed and dimensioned by the specifier and the main contractor in accordance with the relevant standards, because changes are usually not feasible after construction. The basis for calculation of the necessary joint width is the technical values of the joint sealant and the adjacent building materials, plus the exposure of the building, its method of construction and its dimensions

Backing: Use only closed cell, polyethylene foam backing rods.

Substrate Quality	Clean and dry, homogeneous, free from oils and grease, dust and loose or friable particles. Cement laitance must be removed
Substrate Preparation / Priming	<p>Sikaflex®-728 NS generally has strong adhesion to most clean, sound substrates. For optimum adhesion and critical, high performance applications for high stress bonding joints or in case of extreme weather exposure substrate primers and cleaners must be used. If in doubt apply product in test area first.</p> <p><i>Non porous substrates:</i> Aluminium, anodised aluminium, stainless steel and galvanised steel have to be cleaned with a fine abrasive pad and Sika® Aktivator-205 by using a clean towel or cloth. Before sealing allow a flash off time of at least 15 min.</p> <p><i>Asphalt (saw cut):</i> Due to the various types of asphalt pre -trials have to be performed prior any application. In case of any questions please contact the Technical Service Department of Sika. Sikasil®-728 NS is unsuitable for direct use on uncut asphalt.</p> <p><i>Porous substrates:</i> For best performance concrete should be primed with Sika®Primer-3 N by using a brush. Before sealing allow a flash-off time of at least 30 minutes (max. 8 hours).</p> <p>Important note: Primers are only adhesion promoters. They neither substitute for the correct cleaning of the surface nor improve their strength significantly.</p> <p>Primers improve long term performance of a sealed joint. For further information please refer to the Sika® Primer table.</p>
Application Conditions / Limitations	
Substrate Temperature	+5°C min. / +40°C max.
Ambient Temperature	+5°C min. / +40°C max.
Substrate Moisture Content	Dry
Dew Point	Substrate temperature must be 3°C above dew point.
Application Instructions	
Application Method / Tools	<p>Sikasil®-728 NS is supplied ready to use .</p> <p>After suitable joint and substrate preparation, insert Backing Rod to required depth and apply primer if necessary. Firmly extrude Sikasil®-728 NS into joint making sure that it is full contact with the side of the joint. Fill the joint, avoiding air entrapment.</p>
Cleaning of Tools	Clean all tools and application equipment with Sika® Remover-208 / Sika® TopClean-T immediately after use. Hardened (cured) material can only be removed mechanically.
Notes on Application / Limitations	<p>Do not allow sealant to come in contact with solvent during cure.</p> <p>Do not allow sealant to come in contact with curing polyurethane sealants during cure.</p> <p>Do not use for permanent water immersion and sealing of swimming pools.</p> <p>Do not use for structural glazing</p> <p>Bleeding can occur on porous substrates such as concrete, marble, granite and other natural stones. On sensitive substrates, specific pretesting must be carried out.</p> <p>Do not apply to substrates that bleed oils, plasticizers or solvents.</p> <p>Sikasil®-728 NS is not trafficable. For floor joint sealing in industrial floors or flush joints in pedestrian areas please use Sikaflex® PRO-3, Sikaflex® PRO-3 SL instead.</p>

Value Base

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Local Restrictions

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

Health and Safety Information

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

Legal Notes

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Sika's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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