BUILDING TRUST

PRODUCT DATA SHEET

Sikasil®-728 SL

Self-leveling, ultra-low modulus, neutral cure silicone sealant for concrete pavements

DESCRIPTION

Sikasil®-728 SL is a self-leveling, 1-component, ultra-low modulus, elastomeric, neutral cure silicone sealant.

USES

Sikasil®-728 SL is designed to seal horizontal saw cut and expansion joints in concrete pavements on highways, airports, bridges, walkways, parking garages and driveways. Suitable substrates for Sikasil®-728 SL are concrete, steel, glass, aluminium, masonry, asphalt, brick, natural stone and others.
Sikasil®-728 SL can be used on slopes of up to 3 %.

CHARACTERISTICS / ADVANTAGES

- No tooling, less labour
- Very high movement capability
- Very good adhesion, especially to concrete
- Very long service life due to outstanding UV resistance
- Very good flexibility for use in extremely high and low temperatures
- Resistance to jet fuel and road salts

APPROVALS / STANDARDS

- ASTM D 5893 Type SL
- ASTM C920, Type S, Grade P, Class 100/50, Use T_2, M, G, A, O
- TT-S-00230C, Type I, Class A
- TT-S-001543A, Class A
- US Federal Specification SS-S-200E Flame Resistance (section 4.4.12)
- FAA AC 150/5370-10G Item P-605

PRODUCT INFORMATION

Chemical Base	Neutral cure silicone	
Packaging	858 ml (29 fl. oz.) cartridge, 12 cartridges per box 600 ml foil pack, 20 foil packs per box 17 L (4.5 US gal.) pail 197 L (52 US gal.) drum	
Shelf Life	Sikasil®-728 SL has a shelf life of 12 months from the date of production, if it is stored properly in undamaged, original, sealed packaging, and if the storage conditions are met.	
Storage Conditions	Sikasil®-728 SL shall be stored in dry conditions, where it is protected from direct sunlight and at temperatures between +5 °C and +25 °C (+40 °F and +80 °F).	
Colour	Limestone, charcoal grey	
Density	~1.25 kg/l	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A Hardness	~5 (after 21 days)	(ASTM C 661, ASTM D 2240, ISO 868)
Tensile Strength	~0.70 MPa (100 psi)	(ASTM D 412)
Tensile stress at specified elongation	~0.18 MPa (26 psi) at 100 % elongation ~0.19 MPa (28 psi) at 150 % elongation	(ASTM D 412)
Elongation at Break	~1 100 % ~1 000 %	(ASTM D 412) (ISO 37)
Movement Capability	+100 % / –50 %	(ASTM C 719)
Adhesion in Peel	~4 N/mm (23 lbf/in) on mortar substrate	(ASTM C 794)
Service Temperature	–60 °C min. / +175 °C max. (–80 °F min. / +350 °F max.)	
Chemical Resistance	Sikasil®-728 SL is resistant to water, road salts, seawater, diluted alkalis, cement slurry and water dispersed detergent. Sikasil®-728 SL is temporarily resistant to jet fuel spillage. Sikasil®-728 SL is not resistant to alcohols, organic acids, concentrated alkalis and acids and chlorinated hydrocarbons.	
Resistance to Weathering	0 (no cracks)	(ASTM C 793)
Joint Design	The spacing between joints and joint dimensions must be designed to suit the joint movement required and the movement capability of the sealant. The joint width shall be ≥ 6 mm (1/4 inch) and ≤ 1 inch (25 mm). The joint depth shall between 0.5 and 0.8 of the joint width (width:depth ratio of 2:1 – 1:0.8) but always ≥ 6 mm (1/4 inch) and ≤ 13 mm (1/2 inch). The joint shall be recessed half of the joint width but always ≥ 10 mm (3/8 inch). For larger joints, please contact Sika technical service.	

Standard joint dimensions for joints between concrete elements

Joint width [mm]	Joint depth [mm]	Recessed below surface [mm]
6	6	10
10	6	10
15	8	10
20	10	10
25	13	13

Joint width [inch]	Joint depth [inch]	Recessed below surface [inch]
1/4	1/4	3/8
3/8	1/4	3/8
1/2	1/4	3/8
3/4	3/8	3/8
1	1/2	1/2

All joints must be correctly designed and dimensioned in accordance with the relevant standards before their construction. The basis for calculation of the necessary joint widths are the type of structure and its dimensions, the properties of the adjacent building materials and the joint sealing material, as well as the specific exposure of the building and the joints.

APPLICATION INFORMATION

Sag Flow	Self-leveling, can be used on slopes ≤ 3 %
Ambient Air Temperature	+5 °C min. / +40 °C max. (+40 °F min. / +100 °F max.), min. 3 °C (5 °F) above dew point temperature

Substrate Temperature	+5 °C min. / +40 °C max. (+40 °F min. / +100 °F max.) Sealants should be installed when substrates are at mid-range of their anticipated movement.	
Backing Material	Use closed cell, polyethylene foam backing rods 25 % larger than the joint width. If the joint depth does not allow for backer rod, use polyethylene bond breaker tape to prevent three-sided adhesion.	
Curing Rate	~3.5 mm/d ~$^{1}/_{16}$ inch/d	(CQP 049-2) (MNA Method)
Skin Time	~60 min (23 °C (73 °F) / 50 % r.h.)	(ISO 019-1, MNA Method)
Tack Free Time	~115 min (23 °C (73 °F) / 50 % r.h.)	(ASTM C 679)

BASIS OF PRODUCT DATA

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.

FURTHER DOCUMENTS

- Safety Data Sheet
- Pre-treatment Chart Sealing and Bonding

LIMITATIONS

- Sikasil®-728 SL cannot be used on slopes >3 %.
- Do not allow Sikasil®-728 SL to come in contact with solvents during curing.
- Do not allow Sikasil®-728 SL to come in contact with uncured polyurethane sealants during curing.
- Do not use Sikasil®-728 SL to seal joints in and around swimming pools.
- Do not use Sikasil®-728 SL for joints under water pressure or for permanent water immersion.
- Do not use Sikasil®-728 SL for structural glazing.
- Do not use Sikasil®-728 SL on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the sealant.
- Do not use Sikasil®-728 SL on newly poured asphalt concrete.
- Before using Sikasil®-728 SL on natural stone, please refer to our Technical Service Department for advice.

ECOLOGY

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

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. Paint, cement laitance and other poorly adhering contaminants must be removed. Sikasil®-728 SL adheres without primers and/or activators.
However, for optimum adhesion, long term durability and critical, high performance applications, highly stressed joints, extreme weather exposure or water immersion, the following priming and/or pre-treatment procedures shall be followed:

Porous substrates
Concrete shall be primed with Sikasil® Primer-2100 or Sika® Primer-3 N applied with a clean brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours).
Non- porous substrates
On aluminium, anodised aluminium, stainless steel and galvanised steel, Sika® Aktivator-205 shall be applied using a clean towel. Before sealing allow a flash-off time of > 15 minutes.

For detailed advice, please contact our Sika technical service.

APPLICATION METHOD / TOOLS

Sikasil®-728 SL is supplied ready to use.
After the necessary substrate preparation, backer rod installation and primer application, the sealant can be applied into the joint using a sealant gun for cartridges and sausages, or a pump or other bulk dispensing equipment for bulk packaging.

CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Top-Clean T. Once cured, residual material can only be removed mechanically.

LOCAL RESTRICTIONS

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