

PRODUCT DATA SHEET

Sikasil®-728 RCS

TWO-PART, SELF-LEVELING, RAPID CURE, ULTRA LOW MODULUS, HORIZONTAL APPLICATION, NEUTRAL CURE SILICONE SEALANT

DESCRIPTION

Sikasil®-728 RCS (Rapid Cure System) is a self-leveling, two-component, very rapid cure, ultra low modulus elastomeric, neutral cure silicone sealant. Exceeds the requirements of ASTM C-920, Type M, Grade P, Class 100/50, Use T, M, G, A, O; TT-S-00227E, Type I, and various AASHTO reports and state DOT approvals.

USES**Construction Application**

- Horizontal expansion joints
- Highway and bridge joints
- Saw cut joints - new and remedial
- Plaza decks
- Parking decks
- Bridges
- Airports
- Stadiums
- Driveways

Location

- Horizontal
- Interior and exterior
- Above grade or on grade

Substrate

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

CHARACTERISTICS / ADVANTAGES

- No tooling, less labor
- Excellent flexibility for extreme high and low temperature conditions
- Excellent flexibility for dynamic joint movement
- Bonds to most substrates without priming
- Open to traffic in one hour
- All season ease of application
- Good contact/adhesion with hard to reach areas
- Ideal for cold climates
- Excellent for use on runways and tarmacs
- Jet fuel resistant
- Resistant to road salts

PRODUCT INFORMATION

Packaging	40 fl. oz. unit - 2 20 oz. sausages/20 per case; 9 gal. unit (34.11 L) – 2 pails each containing 4.5 gal. (17 L); 104 gal. unit (394.16 L) – 2 drums each containing 52 gal. (197.08 L)
Colour	Limestone and Charcoal Gray (when Part A, dark gray and Part B, white, are mixed).
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	2.4 % by wt., 30 g/l, 0.25 lb./gal

TECHNICAL INFORMATION

Shore Hardness	50 ± 5	Shore OO	(7 days at 77º F (25º C), 50% R.H.) (ASTM C-661 & ASTM D-2240)
	4 - 6	Shore A	
Tensile Strength	70 psi (0.48 MPa)	(7 days, at 77 °F (25 °C) and 50 % R.H.) (ASTM D-412)	
Secant Tensile Modulus	5	(7 days, at 77 °F (25 °C) and 50 % R.H.) (ASTM D-5329 [a] [b]) (100 % elongation)	
Tensile Stress at Specified Elongation	25 psi (0.17 MPa)	(7 days, at 100 % and 77 °F (25 °C) and 50 % R.H.) (ASTM D-412)	
Elongation	725 %	(7 days, at 77 °F (25 °C) and 50 % R.H.) (ASTM D-5329 [a] [b])	
Elongation at Break	> 1000 %	(7 days, at 77 °F (25 °C) and 50 % R.H.) (ASTM D-412)	
Adhesion in Peel	30 pli	(7 days, at 77 °F (25 °C) and 50 % R.H.) (glass, aluminum and concrete) (ASTM C-794)	
Movement Capability	+100 %, -50 %	(7 days, at 77 °F (25 °C) and 50 % R.H.) (ASTM C-719) (glass, aluminum and concrete)	
Resistance to Weathering	Excellent		
Service Temperature	-80–350 °F (-62.2–176.6 °C)		
Joint Design	The number of joints and the joint width may be designed for high movement capability. For joints one to three inches in width, the sealant will accept movements +100% and -50% and for three to four inches in width, the sealant will accept movements of ±50% of joint width at time of installation. The depth of the sealant should be 1/2 the width of the joint. The minimum depth is 1/4 inch (6 mm) and the maximum is 1/2 inch (12 mm). For joints greater than 1 inch (25.4 mm), do not exceed 1/2 inch (6 mm) in depth.		
Extrusion Rate	50 g/min. 1/8” orifice @ 50 psi Specific Gravity 1.25 - 1.35	(ASTM C-1183 modified, Type S)	

APPLICATION INFORMATION

Yield	20 oz Sausage: Yield in Linear feet			
	Width/Depth	1/4"	3/8"	1/2"
	1/4"	48.1		
	3/8"	32.1	21.4	
	1/2"	24.1	16.0	12.0
	3/4"	16.0	10.7	8.0
	1"			6.0
	1.25"			4.8
	1.5"			4.0
	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

Backing Material

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%. Never use open cell rod in on grade horizontal joints.

Sag Flow	self-leveling @ 120 °F (49 °C)	(ASTM C-639)
Curing Time	90 % in 1 h	(at 77 °F (25 °C) and 50 % R.H.) (MNA Method)
Skinning time	10 min.	(at 77 °F (25 °C), 50 % R.H.) (MNA Method)
Tack free time	25 min.	(at 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.

Priming

Sikasil-728 RCS 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 and contact Technical Service for additional information.

APPLICATION METHOD / TOOLS

Joint Design: The number of joints and the joint width may be designed for high movement capability. For joints one to three inches in width, the sealant will accept movements +100 % and -50 % and for three to four inches in width, the sealant will accept movements of ±50 % of joint width at time of installation. The depth of the sealant should be 1/2 the width of the joint. The minimum depth is 1/4 inch (6 mm) and the maximum is 1/2 inch (12 mm). For joints greater than 1 inch (25.4 mm), do not exceed 1/2 inch (6 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%. Never use open cell rod in on grade horizontal joints.

Apply sealant using consistent, positive pressure to force sealant into the joint. Apply the sealant so that it is recessed 1/8 in. (3 mm) below the surface. For parking deck joints, recess 1/4 in. (6 mm). For highway joints, recess 1/2 in. (12.7 mm). Sikasil®-728 RCS is self-leveling - no tooling is needed. DO NOT use soapy water or other liquids. Consult full application guide

for further information. Sikasil®-728 RCS will obtain adhesion to aged, cured asphalt. Never use on newly poured asphalt. Conduct a field test to document and confirm adhesion under actual jobsite conditions. For sausages use a 16 element, 3/4 (19 mm) diameter static mixing nozzle.

Removal

Remove excess sealant from substrate while uncured using a commercial solvent, such as xylene according to the solvent manufacturer's warnings and instructions for use. Cured sealant can only be removed by mechanical means.

IMPORTANT CONSIDERATIONS

- 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.
- Contact Technical Service prior to using in joints over 3 in. (76 mm) wide.
- Not intended for structural glazing.
- Test recommended for absorptive surfaces such as limestone, granite 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 and cure rates.
- Allow treated wood to age six months before application.
- Brass and copper may discolor. Test apply prior to application.
- Test sensitive substrates, such as mirror backings for compatibility before use.

BASIS OF PRODUCT DATA

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

LOCAL RESTRICTIONS

Note that as a result of specific local regulations the

declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

ECOLOGY, HEALTH AND SAFETY

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.

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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