

# PRODUCT DATA SHEET

## Sikasil® C

### SILICONE SEALANT FOR CONSTRUCTION AND SANITARY APPLICATIONS



#### DESCRIPTION

Sikasil® C is a 1-part, neutral curing, non-corrosive multipurpose elastic joint sealant for sealing many types of joint configurations. It has a primerless application and good adhesion to most construction materials. Provides an elastic and flexible waterproof seal with resistance to UV, fungus and mildew. Movement capability  $\pm 25$  %. Internal and external use.

#### USES

Sealing joints for:

- Glazing
- Sanitary
- Movement and connections

#### CHARACTERISTICS / ADVANTAGES

- Primerless for most substrates and applications
- Resistant to UV exposure
- Resistant to weathering and ageing
- Good adhesion to many construction materials such as: metals, concrete, painted surfaces, wood, plastics, ceramic tiles and glass
- Low VOC emissions
- Long term fungus and mildew resistance
- High elasticity and flexibility
- Non-corrosive

#### SUSTAINABILITY

- Conformity with LEED v2009 IEQc 4.1: Low-Emitting Materials - Adhesives and Sealants
- Environmental Product Declaration
- VOC emission classification GEV-EMICODE EC 1<sup>PLUS</sup>

#### APPROVALS / CERTIFICATES

- EN ISO 11600: Building construction - Jointing products - Classification and requirements for sealants.
- CE Marking and Declaration of Performance to EN 1565-1 - Sealants for non-structural use in joints-Facade elements.
- CE Marking and Declaration of Performance to EN 1565-2 - Sealants for non-structural use in joints in buildings - Sealants for glazing.
- CE Marking and Declaration of Performance to EN 1565-2 - Sealants for non-structural use in joints in buildings - Sealants for sanitary joints.

#### PRODUCT INFORMATION

Chemical base	Alkoxy silicone
Packaging	300 ml cartridges, 12 cartridges per box
Colour	Clear
Shelf life	15 months from date of production

<b>Storage conditions</b>	The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.	
<b>Density</b>	~ 1.00 kg/l	(ISO 1183-1)
<b>Product Declaration</b>	EN 15651-1: F EXT-INT 25 LM CC. EN 15651-2: G 25 LM CC. EN 15651-3: S XS1. ISO 11600 F 25 LM. ISO 11600 G 25 LM.	

## TECHNICAL INFORMATION

<b>Shore A Hardness</b>	~ 20 (after 28 days)	(ISO 868)
<b>Secant Tensile Modulus</b>	~ 0.35 N/mm <sup>2</sup> at 100% elongation (23 °C)	(ISO 8339)
<b>Elongation at Break</b>	~ 600%	(ISO 37)
<b>Elastic Recovery</b>	> 70%	(ISO 7389)
<b>Tear Propagation Resistance</b>	~ 3.0 N/mm	(ISO 34)
<b>Movement Capability</b>	± 25%	(ISO 9047)
<b>Service Temperature</b>	-40 °C min. / +150 °C max.	
<b>Joint Design</b>	The joint dimensions must be designed to suit the movement capability of the sealant. For joint width ≥ 10 mm and ≤ 20 mm, a joint depth of 10 mm is recommended. For larger joints contact our Technical Service Department.	

## APPLICATION INFORMATION

<b>Consumption</b>	<b>Joint length [m] per 300 ml</b>	<b>Joint width [mm]</b>	<b>Joint depth [mm]</b>
	3.0	10	10
	2.0	15	10
	1.5	20	10
<b>Sag Flow</b>	< 1 mm approx. (20 mm profile, 23 °C)		(ISO 7390)
<b>Ambient Air Temperature</b>	+5 °C min. / +40 °C max.		
<b>Substrate Temperature</b>	+5 °C min. / +40 °C max., min. 3 °C above dew point temperature		
<b>Curing Rate</b>	~ 3 mm/24 hours (23 °C / 50% r.h.)		(CQP 049-2)
<b>Skinning time</b>	~ 35 minutes (23 °C / 50% r.h.)		(CQP 019-1)

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which could affect adhesion of the sealant. The substrate must be of sufficient strength to resist the stresses induced by the sealant during movement. Removal techniques such as wire brushing, grinding, grit blasting or other suitable mechanical tools can be used. All dust, loose and friable material must be completely removed from all surfaces before application of any activators, primers or sealant. Sikasil® C adheres without primers and/or activators. For optimum adhesion, joint durability and critical, high performance applications such as joints on multi-storey buildings, highly stressed joints, extreme weather and / or water expos-

ure the following priming and/or pre-treatment procedures must be followed:

**Non porous substrates:** Aluminium, anodised aluminium, stainless steel, PVC, galvanized steel, powder coated metals or glazed tiles.

Slightly roughen surface with a fine abrasive pad.

Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth. Before sealing, allow a waiting time of > 15 minutes (< 6 hours). Other metals, such as copper, brass and titanium-zinc, cleaned and pre-treat using Sika® Aktivator-205 applied with a clean cloth.

After a waiting time of > 15 minutes (< 6 hours) apply Sika® Primer-3 N applied by brush. Before sealing, allow a waiting time of > 30 minutes (< 8 hours). PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a waiting time of > 30 minutes (< 8 hours). Glass must be cleaned with Isopropanol before application.

**Porous substrates:** Concrete, aerated concrete and ce-

ment based renders, mortars and bricks surfaces must be primed using Sika® Primer-3 N applied by brush. Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours). For more details such as application and flash-off times, refer to the most recent Product Data Sheet of the respective pre-treatment product. Adhesion tests on project specific substrates must be performed and procedures agreed with all parties before full project application. For more detailed advice and instructions contact Sika Technical Services. Note: Primers and activators are adhesion promoters and not an alternative to improve poor preparation / cleaning of the joint surface. Primers also improve the long term adhesion performance of the sealed joint.

#### APPLICATION METHOD / TOOLS

Reference must be made to further documentation where applicable, such as relevant method statement, application manual and installation or working instructions.

**Masking:** It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skin time after finishing. Joint Backing after the required substrate preparation, insert a suitable backing rod to the required depth.

**Priming:** If required, prime the joint surfaces as recommended in substrate preparation. Avoid excessive application of primer to avoid causing puddles at the base of the joint.

**Application:** Sikasil® C is supplied ready to use. Prepare the end of the foil pack or cartridge, insert into the sealant gun and fit the nozzle. Extrude Sikasil® C into the joint ensuring that it comes into full contact with the sides of the joint and avoiding any air entrapment.

**Finishing:** As soon as possible after application, sealant must be firmly tooled against the joint sides to ensure adequate adhesion and a smooth finish. Use a compatible tooling agent to smooth the joint surface. Do not use tooling products containing solvents.

#### CLEANING OF EQUIPMENT

Removal of fresh remnants from tools and application equipment can be carried out using Sika® Remover-208 immediately after use. Once cured, residual material can only be removed mechanically.

#### FURTHER INFORMATION

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

## IMPORTANT CONSIDERATIONS

- Sikasil® C cannot be overpainted.
- Colour variations may occur due to the exposure in service to chemicals, high temperatures and/or UV radiation (especially with white colour shade). This effect is aesthetic and does not adversely influence the technical performance or durability of the product.
- Do not use on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might leach oils, plasticizers or solvents that could degrade the sealant.
- Do not use Sikasil® C in totally confined spaces as it requires atmospheric moisture to cure.
- Do not use to seal joints in and around swimming pools.
- Sikasil® C is not recommended for porous substrates such as concrete, stone, marble and granite. Bleeding can occur when product is used on these substrates.
- Do not use where physical or abrasion exposure is likely to occur, structural glazing and insulated glazing or food contact applications. Contact Sika Technical Services for advice on alternative products.
- Do not use for joints under water pressure or permanent water immersion.
- Do not use for medical or pharmaceutical applications.

## 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.

## 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.

## 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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