

PRODUCT DATA SHEET

Sikasil® Universal

ACETOXY SILICONE SEALANT FOR GLAZING AND WEATHERPROOFING



DESCRIPTION

Sikasil® Universal is a 1-component, solvent-free sealant for indoor and outdoor applications. Suitable for use in hot and tropical climatic conditions.

USES

Sikasil® Universal is designed for glazing and weatherproofing applications on non-porous substrates such as glass or glazed ceramic tiles.

CHARACTERISTICS / ADVANTAGES

- Low-modulus
- High elasticity and flexibility
- Very good resistance to shrinkage, cracking and discoloration
- Very good adhesion to a variety of non-porous substrates

SUSTAINABILITY

Sikasil® Universal conforms to LEED® v3 IEQ 4.1
VOC content < 50 g/L (US EPA method 24)

APPROVALS / CERTIFICATES

- EN 15651-1 F EXT-INT CC

PRODUCT INFORMATION

Composition	Acetoxy silicone
Packaging	280 mL cartridges, 12 cartridges per box
Colour	Clear, white, grey and black
Shelf life	Sikasil® Universal 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® Universal shall be stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +25 °C.
Density	~1.00 kg/L (ISO 1183-1)

TECHNICAL INFORMATION

Shore A Hardness	~20 (after 28 d)	(ISO 868)
Tensile Strength	~1.7 N/mm ²	(ISO 8339)
Secant Tensile Modulus	~0.35 N/mm ² at 100% elongation (23 °C)	(ISO 8339)
Elongation at Break	~710%	(ISO 37)

Elastic Recovery	> 90%	(ISO 7389)
Tear Propagation Resistance	~1.9 N/mm	(ISO 34)
Movement Capability	± 20%	(ISO 9047)
Service Temperature	-40 °C min. to +100 °C max.	
Joint Design	The joint width must be designed to suit the joint movement required and the movement capability of the sealant. For joints ≥ 10 mm and ≤ 20 mm wide, a joint depth of 10 mm is recommended. For larger joints please contact our Technical Department.	

APPLICATION INFORMATION

Consumption	Joint length [m] per 280 mL	Joint width [mm]	Joint depth [mm]
	2.8	10	10
1.8	15	10	
1.4	20	10	

Sag Flow	< 1 mm (20 mm profile, 23 °C)	(ISO 7390)
Ambient Air Temperature	+5 °C min. / +40 °C max. (min. 3 °C above dew point temperature)	
Substrate Temperature	+5 °C min. / +40 °C max.	
Curing Rate	~3.0 mm/24 h (23 °C / 50% r.h.)	(CQP 049-2)
Skinning time	~15 min (23 °C / 50% r.h.)	(CQP 019-1)

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® Universal adheres without primers and/or activators. However, for optimum adhesion and critical, high performance applications, such as on multi-story buildings, highly stressed joints, extreme weather exposure or water immersion, the following priming and/or pre-treatment procedures shall be followed:

Aluminium, anodised aluminium, stainless steel, galvanised steel, powder coated metals or glazed tiles have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. Before sealing, allow a flash-off time of > 15 minutes (< 2 hours). Other metals, such as copper, brass and titanium-zinc, also have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. After the necessary flash-off time, use a brush to apply Sika® Primer-3 N and allow a further flash-off time of > 30 minutes (< 4 hours) before sealing the joints. PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 4 hours). Glass shall be cleaned with isopropyl alcohol before application.

Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

For more detailed advice and instructions please contact our Technical Department.

APPLICATION METHOD / TOOLS

Sikasil® Universal is supplied ready to use. After the necessary substrate preparation, insert a suitable backing rod to the required depth and apply any primer if necessary. Insert a cartridge into the sealant gun and extrude Sikasil® Universal into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Sikasil® Universal sealant must be firmly tooled against the joint sides to ensure adequate adhesion.

It is recommended to use masking tape where exact joint lines or neat lines are required. Remove the tape within the skin time. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

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

FURTHER INFORMATION

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

IMPORTANT CONSIDERATIONS

- Do not use Sikasil® Universal 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 in totally confined spaces, Sikasil® Universal requires atmospheric moisture to cure.
- Sikasil® Universal is not recommended for porous substrates, such as concrete, stone, marble and granite. Bleeding can occur when Sikasil® Universal is used on these substrates.
- Sikasil® Universal is not recommended for use on submerged joints, joints where physical abuse or abrasion are likely to occur, structural glazing or insulated glazing, and food contact applications.
- Do not use Sikasil® Universal for medical or pharmaceutical uses.
- Acetic acid released during the curing of Sikasil® Universal can cause the corrosion of mirror silver and sensitive metals such as copper, brass and lead.
- Do not use Sikasil® Universal on alkaline surfaces such as concrete, plaster and brick.

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.

SIKA NORTHERN GULF

Bahrain / Qatar / Kuwait
Tel: +973 177 38188
sika.gulf@bh.sika.com
gcc.sika.com

SIKA SOUTHERN GULF

UAE / Oman / SIC
Tel: +971 4 439 8200
info@ae.sika.com
gcc.sika.com

SIKA SAUDI ARABIA

Riyadh / Jeddah / Damman
Tel: +966 11 217 6532
info@sa.sika.com
gcc.sika.com



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Sika Gulf B.S.C. (c),
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Sika Qatar LLC
ISO 14001: Sika UAE LLC,
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Sika Saudi Arabia Co. Ltd
OHSAS: Sika UAE LLC,
Sika Gulf B.S.C. (c)

All products are supplied
under a management
system certified to conform
to the requirements of the
quality, environmental and
occupational health &
safety standards ISO 9001,
ISO 14001 and OHSAS
18001.

Product Data Sheet

Sikasil® Universal
April 2018, Version 01.01
02051403000000085

SikasilUniversal-en-AE-(04-2018)-1-1.pdf