

PRODUCT DATA SHEET

Sikasil®-109 Plus

ACETOXY SILICONE SEALANT FOR CONSTRUCTION APPLICATIONS

DESCRIPTION

Sikasil®-109 Plus is a 1-component, acetoxy curing silicone sealant for indoor and outdoor applications.

USES

Sikasil®-109 Plus is designed for sealing joints between various substrates such as glass.

CHARACTERISTICS / ADVANTAGES

- Medium modulus
- Good elasticity and flexibility
- Good weathering resistance and durability
- Good adhesion to a variety of non-porous substrates

PRODUCT INFORMATION

Chemical base	Acetoxy silicone
Packaging	~330 g cartridges, 12 cartridges per box
Colour	Clear, white, black
Shelf life	Sikasil®-109 Plus 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®-109 Plus shall be stored in dry conditions, upside down, 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	~ 24 (after 28 days) (ISO 868)
Tensile Strength	~ 0.60 MPa (ISO 8339)
Secant Tensile Modulus	~ 0.35 MPa at 100% elongation (23°C) (ISO 8339)
Elastic Recovery	> 90% (ISO 7389)
Elongation	~ 300% (ISO 37)
Movement Capability	± 20% (ISO 9047)
Service temperature	- 40°C to + 150°C
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 Service Department.

APPLICATION INFORMATION

Consumption	Joint length [m] per 300 ml	Joint width [mm]	Joint depth [mm]
	2.9	10	10
	1.9	15	10
	1.5	20	10

Ambient Air Temperature	+ 5°C to + 40°C, min 3°C above dew point temperature		
Substrate Temperature	+ 5°C to + 40°C		
Curing Rate	~ 5.0 mm / 24 hours (23°C / 50% r.h)		(CQP 049-2)
Skin time	~ 6 minutes (23°C / 50% r.h)		(CQP 019-1)

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

IMPORTANT CONSIDERATION

- Do not use Sikasil®-109 Plus 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®-109 Plus requires atmospheric moisture to cure.
- Sikasil®-109 Plus is not recommended for porous substrates, such as concrete, stone, marble and granite. Bleeding can occur when Sikasil®-109 Plus is used on these substrates.
- Sikasil®-109 Plus 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 product for medical or pharmaceutical.
- Acetic acid released during the curing of Sikasil®-109 Plus can cause the corrosion of mirror silver and sensitive metals such as copper, brass and lead.
- Do not use Sikasil®-109 Plus on alkaline surfaces such as concrete, plaster and brick.
- Do not use Sikasil®-109 Plus under water.

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.

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®-109 Plus 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 (< 6 hours).
- Other metals, such as copper, brass and titaniumzinc, 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 (< 8 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 (< 8 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 Service Department.

APPLICATION METHOD / TOOLS

Sikasil®-109 Plus 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®-109 Plus into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Sikasil®-109 Plus 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 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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Product Data Sheet

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