BUILDING TRUST

PRODUCT DATA SHEET

Sikasil® E

Silicone sealant for glazing applications

DESCRIPTION

Sikasil® E is a 1-part, elastic, silicone sealant for glazing.

USES

- Glazing and weatherproofing applications on non-porous substrates such as glass
- For interior and exterior use

CHARACTERISTICS / ADVANTAGES

- Long term fungus and mildew resistance
- Very good UV and weathering resistance
- Very good adhesion to a range of non-porous substrates
- Movement capability ±20 %
- Solvent free (acc. to TRGS 610)
- High elasticity and flexibility

SUSTAINABILITY

- IBU Environmental Product Declaration (EPD)

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 15651-2 - Sealants for non-structural use in joints in buildings - Sealants for glazing

PRODUCT INFORMATION

Product declaration	EN 15651-2: G CC	
Composition	Acetoxy silicone	
Packaging	300 ml cartridges: 12 cartridges per box Refer to current price list for packaging variations.	
Shelf life	18 months from date of production	
Storage conditions	The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging.	
Colour	Colour range to be defined by local sales organisation.	
Density	~1,00 kg/l	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A hardness	~20 (after 28 days)	(ISO 868)

Tensile strength	~1,8 N/mm²	(ISO 8339)
Secant tensile modulus	~0,35 N/mm² at 100 % elongation (23 °C)	(ISO 8339)
Tensile strain at break	~550 %	(ISO 37)
Movement capability	±20 %	(ISO 9047)
Elastic recovery	>90 %	(ISO 7389)
Tear propagation resistance	~2,6 N/mm	(ISO 34)
Service temperature	–40 °C / +100 °C	
Joint design	The joint dimensions must be designed to suit the movement capability of the sealant. For joint widths more than 10 mm and less than 20 mm, a joint depth of 10 mm is recommended. For larger joints, contact Sika Technical Services for additional information.	

APPLICATION INFORMATION

Consumption

Joint width [mm]	Joint depth [mm]	Joint length [m] per 300 ml
10	10	3,0
15	10	2,0
20	10	1,5

Consumption depends on the roughness and absorbency of the substrate. These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Sag flow	< 1 mm (20 mm profile, +23 °C)	(ISO 7390)
Ambient air temperature	+5 °C min. / +40 °C max.	
Substrate temperature	+5 °C min. / +40 °C max. Minimum +3 °C above dew point temperature	
Curing rate	~3 mm / 24 hours (+23 °C / 50 % r.h.) * Sika Corporate Quality Procedure	(CQP* 049-2)
Skinning time	~25 min (+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 INFORMATION

- Sika Pre-treatment Sealing and Bonding Chart

IMPORTANT CONSIDERATIONS

- Sikasil® E 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 to seal joints in or around swimming pools.
- Do not use on bituminous substrates, natural rubber or any building materials which might leach oils, plasticisers or solvents that could degrade the sealant. EPDM or other gaskets in direct contact with Sikasil® E must be tested for compatibility before application. For specific advice contact Sika Technical Services.
- Do not use in totally confined spaces as it requires atmospheric moisture to cure.
- Sikasil® E is not recommended for porous substrates, such as natural stone, marble and granite. Staining from plasticiser migration may occur when used on these substrates. Preliminary trials must be carried out to check if the substrate experiences staining before full project application.
- 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 medical or pharmaceutical applications.
- Acetic acid released during curing can cause the corrosion of mirror silver and sensitive metals such as cooper, brass and lead.
- Do not use on alkaline surfaces such as concrete, plaster, render and brick.

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 sound, clean, dry and free of all contaminants such as dirt, oil, grease, 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® E 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 exposure or water immersion / exposure. The following priming and/or pre-treatment procedures must be followed:
Non-porous substrates
Aluminium, anodised aluminium, stainless steel, PVC, galvanised 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, clean 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
Porous substrates must be primed using Sika® Primer-3 N applied by brush.
Before sealing, allow a waiting time of > 30 minutes (< 8 hours).
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.

MIXING

1-part ready to use

APPLICATION METHOD / TOOLS

Strictly follow installation procedures as defined in method statements, application manuals and working instructions which must always be adjusted to the actual site conditions.
Masking
It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skinning 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® E 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® E 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. Water can be used. Do not use tooling products containing solvents.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Remover-208 immediately after use. Hardened material can only be removed mechanically. For cleaning skin, use Sika® Cleaning Wipes-100.

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.

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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