BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-121 Roof Tiles

Adhesive for roof tiles

DESCRIPTION

Sikaflex®-121 Roof Tiles is a 1-part, high-performance elastic adhesive for sealing, bonding and repairing roof tiles.

USES

An adhesive to bond various types of roof tiles and sheets such as:
- Concrete
- Clay
- Metal

Sealing around roof tiles to prevent water penetration
Repairing broken roof tiles
The product can be used on various substrates. Refer to 'Substrate Preparation' section for compatible substrates.
The Product can be used for interior and exterior applications.

Please note:
The product is not suitable for the following applications:
- Bonding and sealing of glass if the bond line is exposed to sunlight
- Structural bonding

CHARACTERISTICS / ADVANTAGES

- Good adhesion to porous and non-porous substrates
- Good mechanical properties
- Good workability
- Very low emissions - EC 1PLUS
- Solvent free (acc. to TRGS 610)
- Over-paintable
- Adhesive-sealant with CE marking

SUSTAINABILITY

- Conformity with LEED v4 EQc 2: Low-Emitting Materials
- VOC emission classification GEV-EMICODE EC 1PLUS
- VOC emission M1, eurofins, Attestation

APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 15651-1 - Sealants for non-structural use in joints in buildings - Facade elements: Class F EXT-INT CC 20HM

PRODUCT INFORMATION

Composition	Silane Terminated Polymer
Packaging	290 ml cartridge, 12 cartridges per box
Colour	Tile red
Shelf life	12 months from the date of production
Storage conditions	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.

Density	~1,35 kg/l	(ISO 1183-1)

TECHNICAL INFORMATION

Shore A hardness	~40 (after 28 days)	(ISO 868)
Tensile strength	~1,8 N/mm²	(ISO 37)
Tensile strain at break	~300 %	(ISO 37)
Tear propagation resistance	~5,0 N/mm	(ISO 34)
Service temperature	–40 °C min. / +80 °C max.	

APPLICATION INFORMATION

Yield

Yield 1 Cartridge (290 ml)	Dimension
~100 spots	Diameter = 30 mm Thickness = 4 mm
~15 m bead	Nozzle diameter = 5 mm (~20 ml per linear metre)

Note: For heavy objects, more or thicker beads (up to ~120 ml per linear metre) maybe required.
These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level, wastage or any other variations. Apply product to a test area to calculate the exact consumption for the specific substrate conditions and proposed application equipment.

Sag flow	~0 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., min. +3 °C above dew point temperature	

Curing rate

~3 mm/24 hours (+23 °C / 50 % r.h.)	Sika Corporate Quality Procedure (CQP 049-2)

Note: Final strength will be reached after complete curing, i.e. after 24 to 48 hours at +23 °C, depending on the environmental conditions and adhesive layer thickness.

Skinning time	~25 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 INFORMATION

Pre-treatment Chart Sealing and Bonding

IMPORTANT CONSIDERATIONS

- For good workability, the adhesive temperature must be +20 °C.
- Application during high temperature changes is not recommended (movement during the curing).
- Before bonding, check adhesion and compatibility with paints and coatings by carrying out preliminary trials.
- The Product can be over-painted with most conventional facade paint coating systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials Optimum results are obtained when the sealant is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the sealant and lead to cracking of the paint coating. Depending on type of paint used, plasticiser migration may occur causing the paint to become surface 'tacky'.
- 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.
- Always use the Product in conjunction with mechanical fixings for overhead applications or heavy items.
- For very heavy components provide temporary support until the product has fully cured.
- Full surface applications / fixings are not recommen-

ded since the inner part of the adhesive layer may never reach full cure.
- Before applying onto natural stone, contact Sika Technical Services.
- 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 Sikaflex®-121 Roof Tiles must be tested for compatibility before application. For specific advice contact Sika Technical Services.
- Do not use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and certain plasticised synthetic materials. Preliminary trials must be carried out or contact Sika Technical Services.
- Do not expose the uncured Product to alcohol containing products as this may interfere with the curing reaction.

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

Note: Primers are adhesion promoters and not an alternative to improve poor preparation / cleaning of joint surfaces. Primers also improve the long-term adhesion performance of a sealed joint.
- 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 adhesive.
- Use wire brushing, abrading or grinding equipment to prepare the surface.
- Sikaflex®-121 Roof Tiles adheres without primers and/or activators. However, for optimum adhesion and critical, high performance applications the following priming and/or pre-treatment procedures must be followed:

Non-porous substrates
Aluminium, anodised aluminium, galvanised steel, glazed tiles, powder coated metals, stainless steel.
1. Lightly roughen the substrate with a fine abrasive pad.
2. Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth.
3. Before bonding / sealing, allow a waiting time of > 15 minutes (< 6 hours).

Brass, copper, titanium-zinc.
1. Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth.
2. Allow a waiting time of > 15 minutes (< 6 hours).
3. Apply Sika® Primer-3 N applied by brush.
4. Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours) before bonding / sealing.

PVC
1. Clean and pre-treated using Sika® Primer-215 applied with a brush.
2. Before bonding / sealing, allow a waiting time of > 15 minutes (< 8 hours).

Glass
1. Clean glass with Isopropanol before bonding / sealing.

Porous substrates
Concrete, aerated concrete, cement-based renders, mortar, brick.
1. Prime the substrate using Sika® Primer-3 N applied by brush.
2. Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours).

For more detailed advice and instructions contact Sika Technical Services.

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.
Note: Allow the primer or pre-treatment product, if applied, to achieve the required waiting time before sealing.

Bonding procedure
Note:Incorrectly positioned components can easily be unbonded and repositioned during the first few minutes after application. If necessary, use temporary adhesive tapes, wedges, or supports to hold the assembled components together during the initial curing time.
1. Cut the top off the cartridge before or after inserting into the sealant gun.
2. Fit the nozzle onto the cartridge or sealant gun body.
3. Cut the nozzle to the required bead size.
4. Apply in beads, strips or spots at intervals of a few centimetres each.
5. Position and bond the components together using hand pressure only before skinning of the adhesive occurs.

6. Remove fresh, uncured adhesive remaining on the surface immediately.

Sealing procedure
Application
Note:It is recommended to use masking tape where neat or exact joint lines are required. Remove the tape within the skinning time after finishing.
1. Cut the top off the cartridge before or after inserting into the sealant gun.
2. Fit the nozzle onto the cartridge or sealant gun body.
3. Cut the nozzle to the required bead size.
4. Extrude the product around the tile ensuring that it comes into full contact with the sides and avoiding any air entrapment.

Finishing
Note: Do not use tooling products containing solvents.
As soon as possible after application, firmly tool the sealant against the joint sides to ensure adequate adhesion and a smooth finish.
Use a compatible tooling agent (e.g. Sika® Tooling Agent N) to smooth the joint surface. Water can be used.

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 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

Any information or suggestions for use concerning Sika's products, which we either in writing or orally have given buyers or end-users of the product, have been given in good faith based on our own experiences and based on approved praxis and the technological and scientific knowledge on the time of giving such suggestions and information, which are given without any type of guarantees, and which do not lead to any further responsibility from Sika Danmark A/S, besides what is stated in the sales agreement in question. The buyer or end-user should themselves investigate or otherwise make sure, that our products are suitable for the use in question and further make sure that the products are kept and used correct and in agreement with the published rules and considering the actual conditions in order to avoid damages or less satisfactory results. Any order is accepted and any deliverance is affected according to the general terms of sales and delivery from Sika Danmark A/S, which are considered known and accepted, and which could be handed out when asked for. Our catalogues are not up-dated automatically. The present product data sheet is only for use in Denmark. Values stated in the present product data sheet should be seen as recommended, unless stated otherwise.

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