

PRODUCT DATA SHEET

Sikaflex®-127

Multipurpose sealant and adhesive based on hybrid polyurethane

DESCRIPTION

Sikaflex®-127 is a single component, elastic, moisture curing, hybrid polyurethane based construction sealant and adhesive. Its good adhesion to most construction materials and good weathering resistance makes it especially suitable for a variety of interior and exterior sealing applications.

USES

As a sealant for:

- Connection joints
- Window and door frames
- Precast concrete elements
- Applications requiring over-painting of sealant
- Interior and exterior use
- All other types of undefined gap filling likely to experience low to medium movement

An adhesive to bond most construction components and materials such as:

- Concrete
- Masonry
- Most stones
- Ceramic
- Wood
- Metals
- Glass
- Plastic
- PVC
- Aluminium Composite Panels

CHARACTERISTICS / ADVANTAGES

- Single component, ready to use
- Good ageing resistance
- Good weathering resistance
- Bonds well to a wide variety of substrates without the need for special pre-treatment
- Easy to apply
- Suitable for gluing gutters, drip trays, flashings, and connection joints
- Moisture cured
- Fast skinning
- Isocyanate and solvent free
- Can be overpainted
- Low odour

PRODUCT INFORMATION

Chemical base	hybrid polyurethane based on silane terminated polymer
Packaging	600 ml foil pack, 20 foil packs per box 300 ml cartridge, 12 cartridges per box
Colour	Concrete Grey, White, Black
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 +10 °C and +25 °C. Protect from direct sunlight.

Density ~1.65 kg/L

TECHNICAL INFORMATION

Shore A hardness	~ 35	(ASTM D 2240: 2015/ISO 868)
Tensile strength	≥ 1.0 N/mm ²	(ASTM D 412:2016/ISO 37)
Secant tensile modulus	N/mm ² ~ 0.6	(ISO 8339:2005)
Elastic recovery	≥ 80%	(ISO 7389: 2002)
Tear propagation resistance	~ 8.0 N/mm	(ASTM D 624: 2000/ISO 34)
Movement capability	± 12.5 %	(ASTM C719: 2014)
Chemical resistance	Sikaflex®-127 is resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, glycolic alcohol, concentrated mineral acids, caustic solutions or solvents.	
Service temperature	-50 °C min. / +90 °C max.	
Elongation at break	≥ 350 %	(ASTM D 412:2016/ISO 37)

APPLICATION INFORMATION

Consumption	1650 kg is required for a groove size of 1 cum	
Sag flow	No flow upto 50°C	
Ambient air temperature	+5 °C min. / +40 °C max.	
Substrate temperature	+5 °C min. / +40 °C max., min. 3 °C above dew point temperature	
Backing material	Use closed or open cell, polyethylene foam backing rod	
Curing rate	~2 mm/24 hours (+23 °C / 50 % r.h.)	Corporate Quality Procedure (CQP 049-2)
Skin time	~40 minutes (+23 °C / 50 % r.h.)	Corporate Quality Procedure (CQP 019-1)
Tack free time	Upto 16 hrs	(BS 5212-3: 1990)

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

- Pre-treatment Sealing and Bonding Chart for Silane Terminated Polymers
- General Guideline on Sealing and Bonding with Sikaflex®

FURTHER DOCUMENTS

Adhesion & Cohesion	No Failure	(BS 5212 -3: 1990)
VOC	< 50 g/L	(IS 101-P-2/Sec 3) : 2015

IMPORTANT CONSIDERATIONS

- 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.
- Sikaflex®-127 can be over-painted with most conventional facade coating paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials (e.g., according to ISO technical paper: Paintability and Paint Compatibility of Sealants). 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.
- Do not mix or expose the uncured product to substances that may react with isocyanate, especially alcohols that are often present in thinners, removers, solvents, cleaning agents, release agents, etc., as this contact interferes or interrupts the curing crosslinks of the material.
- Do not use Sikaflex®-127 on natural stone.
- Do not use for structural glazing or as a glass sealant.

- 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®-127 must be tested for compatibility prior to application. For specific advice contact Sika Technical Services.
- Do not use Sikaflex®-127 to seal joints in and around swimming pools.
- Do not use Sikaflex®-127 for joints under water pressure or for permanent water immersion.
- Do not use for medical or pharmaceutical applications.

ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

EQUIPMENT

Sikaflex®-127 sausages is applied with hand operated closed type cartridge gun and cartridges is applied with open type cartridge gun. Similar pneumatic or battery-operated guns may also be used.

SUBSTRATE QUALITY

- 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 / sealant.
- The substrate should be of sufficient strength to resist the stresses induced by the sealant during movement.

SUBSTRATE PREPARATION

All substrates

- Removal techniques such as wire brushing, grinding, sanding 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 adhesive / sealant.

Sikaflex®-127 adheres without primers and/or activators. Primers are adhesion promoters and not an alternative to improve poor preparation / cleaning of joint surfaces. For optimum adhesion, joint durability and critical high-performance applications the following priming and/or pre-treatment procedures shall be followed:

Non-porous substrates

- Aluminium, anodised aluminium, stainless steel, galvanised steel, powder coated metals, glazed tiles, plastic or PVC: slightly roughen surface with a fine abrasive pad. Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth. Before bonding / 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® Cleaner P or Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 hours). Apply Sika® Primer-3 applied by brush. Allow a further waiting time of > 30 minutes (< 8 hours) before bonding / sealing.

Porous substrates

- Concrete, aerated concrete and cement-based renders, mortars and bricks: prime surface using Sika® Primer-3 applied by brush. Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours).

For more detailed advice and instructions contact Sika Technical Services.

APPLICATION

IMPORTANT

Sikaflex®-127 can be applied between +5 °C and +40 °C but changes in reactivity and application properties must be considered. The optimum temperature for substrate and sealant is between +15 °C and +25 °C.

Bonding Procedure

1. After the necessary substrate preparation, prepare the end of the cartridge before or after inserting into the sealant gun then fit the nozzle.
2. Apply in beads, strips or spots at intervals of a few centimetres each. Use hand pressure only to fix the components to be bonded into position before skinning of the adhesive occurs. 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.
3. Fresh, uncured adhesive remaining on the surface must be removed immediately. Final strength will be reached after complete curing of Sikaflex®-127, i.e. after 24 to 48 hours at +23 °C, depending on the environmental conditions and adhesive layer thickness.

Sealing Procedure

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 wherever necessary.

Priming

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

Prepare the end of the cartridge before or after inserting into the sealant gun then fit the nozzle. Extrude Sikaflex®-127 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 (e.g., Sika® Tooling Agent N) to smooth the joint surface. Do not use tooling products containing solvents.

Overpainting

Sikaflex®-127 can be best painted by allowing the sealant to fully cure first. All paints must be tested by car-

rying preliminary trials under manufacturing conditions. The elasticity of paints is usually lower than that of sealants. This could lead to cracking of the paint in the joint area.

CLEANING OF TOOLS

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

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 exact product data and uses.

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 India Pvt. Ltd.

620, Diamond Harbour Road
Commercial Complex II
Kolkata - 700 034
West Bengal, India

Contact:

Phone: +91 33 2447 2448
Fax: +91 33 2397 8688
info.india@in.sika.com
www.sika.in



Product Data Sheet

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