

PRODUCT DATA SHEET

Sikaflex[®]-11 FC

One part advanced polyurethane, elastomeric sealant/adhesive

DESCRIPTION

Sikaflex[®]-11 FC is a one-component, gun-grade, adhesive and sealing compound of permanent elasticity. This dual-purpose material is based on a special moisture-cured polyurethane with an accelerated curing time that meets ASTM C920 Type S, Grade NS, Class 12.5, Use NT, I, M, G, A, O. and Federal Specification TT-S-00230C.

USES

As an elastic adhesive for:

- Cover plates, gaskets and coverings.
- Acoustic ceiling tiles.
- Floor moldings and door sills.
- Light weight construction materials.
- Wood or metal and door frames.
- Roof tiles.

As an elastic joint sealer for:

- Air ducts and high vacuum systems.
- Containers, tanks, and silos.
- Gaskets in openings in walls or floors for ducts, piling, etc.
- Reservoirs or water retaining structures.
- Aluminum fabrication.
- Bolted lap joints.

CHARACTERISTICS / ADVANTAGES

- Excellent adhesion on all cement-based materials, brick, ceramics, glass, metals, wood, epoxy, polyester and acrylic resin.
- Fast cure rate.
- Good weathering and water resistance.
- Non-corrosive.
- Can be painted over with water, oil, and rubber-based paints. (Preliminary tests recommended).
- High durability.

PRODUCT INFORMATION

Packaging	300 ml cartridge
Colour	White, Black, Brown, Grey
Shelf life	12 months in unopened container.
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.
Density	~1.35 kg/l

TECHNICAL INFORMATION

Shore A hardness	~37 (after 28 days)	(ISO 868)
Tensile strength	~1,5 N/mm ²	(ISO 37)
Elongation at break	~700 %	(ISO 37)
Elastic recovery	~80 %	(ISO 7389)
Chemical resistance	Resistant to many chemicals. Contact Sika® Technical Services for additional information.	
Service temperature	-40 °C min. / +80 °C max.	
Resistance to weathering	Excellent	

APPLICATION INFORMATION

Product temperature

Ambient air temperature	+5 °C min. / +40 °C max. Sealant should be installed when joint is at mid-range of its anticipated movement.
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Curing rate	Tack-free Time (TT-S-00230C)	1 to 2 hours depending on climate
	Final Cure	3 to 5 days

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.

IMPORTANT CONSIDERATIONS

- Allow 5 day cure at standard conditions when using Sikaflex®-11 FC in total water immersion situations and prior to painting.
- Avoid exposure to high levels of chlorine. (Maximum level is 5ppm).
- Maximum depth of sealant must not exceed 1/2 in.; minimum depth is 1/4 in.
- Maximum expansion and contraction should not exceed 12.5 % of average joint width.
- Avoid contact with alcohol and other solvent cleaners during cure.
- Do not apply when moisture-vapor-transmission condition exists from the substrate as this can cause bubbling within the sealant.
- Use opened cartridges the same day.
- When applying sealant, avoid air-entrapment.
- Since system is moisture-cured, permit sufficient exposure to air.
- White color tends to yellow slightly when exposed to ultraviolet rays.
- The ultimate performance of Sikaflex®-11 FC depends on proper application, good design and proper preparation of joint surfaces.
- Not for use in expansion joints.
- Heavier substrates may require additional support during the cure period.
- Do not use in contact with bituminous/asphaltic materials.

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, cement laitance, old sealants and poorly bonded paint coatings which could affect adhesion of the adhesive / sealant. The substrate must be of sufficient strength to resist with the stresses induced by the sealant during movement. 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®-11 FC adheres without primers and/or activators.

However, for optimum adhesion, joint durability and critical, high performance applications 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® Cleaner P or 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 N by brush.

Allow a further waiting time of > 30 minutes (< 8 hours) before bonding / sealing, PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush.

Before bonding / sealing, allow a waiting time of > 15 minutes (< 8 hours).

Porous substrates

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

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. Contact Sika Technical Services for additional information.

APPLICATION METHOD / TOOLS

Recommended application temperatures: 5 – 35 °C. For cold weather application, condition material to 20 –25 °C before using. Place nozzle of gun into bottom of the joint and fill entire joint. Keep the nozzle in the sealant; continue on with a steady flow of sealant preceding the nozzle to avoid air entrapment. Avoid overlapping of sealant to eliminate entrapment of air.

Tooling and Finishing

Tool as required. Joint dimension should allow for 6 mm minimum and 12 mm maximum thickness for sealant. Proper design is 2:1 width to depth ratio.

Removal

In case of spills or leaks, wear suitable protective equipment, contain spill, collect with absorbent material, and transfer to suitable container. Ventilate area. Avoid contact. Dispose of in accordance with current, applicable local, state, and federal regulations.

Over Painting

Allow 5 day cure at standard conditions when using Sikaflex-11 FC in total water immersion situations and prior to painting.

CLEANING OF EQUIPMENT

Clean all tools and application equipment with Sika® Remover-208 immediately after use. Once cured, 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

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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