

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	Disposable 10.1 fl. oz., moisture-proof composite cartridges, 24/case.
Colour	White
Shelf Life	12 months in unopened container.
Storage Conditions	Store at 40–95 °F (4–35 °C). Condition material to 65–75 °F before using.
Volatile organic compound (VOC) content	28.5 g/L

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TECHNICAL INFORMATION

Shore A Hardness	40–45	(73 °F (23 °C) and 50 % R.H.) (ASTM D-2240)
Tensile Strength	225 psi	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)
Elongation at Break	600 %	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)
Elastic Recovery	>90 %	(73 °F (23 °C) and 50 % R.H.) (ASTM C-719)
Lap Shear Strength	165 psi	(73 °F (23 °C) and 50 % R.H.) (ASTM D-1002 modified, glass substrate)
Chemical Resistance	Good resistance to water, weak acids, weak alkalis, sewerage, mineral oils, vegetable oils, fats, fuels. (Not resistant to organic solvents, paint thinner, strong acids, strong alkalis). Consult Technical Service for specific data.	
Service Temperature	-40 °F to 170 °F	
Resistance to Weathering	Excellent	

APPLICATION INFORMATION

Consumption	Width/Depth	1/4"	3/8"	1/2"
	1/4"	24.3		
3/8"	16.2	10.8		
1/2"	12.1	8.1	6.1	
3/4"	8.1	5.4	4.0	
1"			3.0	
1.25"			2.4	
1.5"			2.0	

Product Temperature

Ambient Air Temperature	40 °F to 100 °F. 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.

LIMITATIONS

- 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

Clean all surfaces. Joint walls must be sound, clean, dry, frost-free, and free of oil and grease. Curing compound residues and any other foreign matter must be thoroughly removed. A roughened surface will also enhance bond.

Priming

Priming is not usually necessary for anodized aluminum, steel, non-absorbent materials such as glass, ceramics, stoneware and tiles. Most substrates only require priming if testing indicates a need or where sealant will be subjected to water immersion after cure. Consult Technical Service at 1-800-933-SIKA for additional information on priming.

APPLICATION METHOD / TOOLS

Recommended application temperatures: 40–100 °F. For cold weather application, condition material to 65–75 °F 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 1/4 inch minimum and 1/2 inch 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. In case of emergency, call chemtrec 1-800-424-9300.

Over Painting

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

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.

Sika Pakistan (Pvt.) Limited

141-CCA Phase IV, DHA

Lahore Punjab 54792

Pakistan

phone: +92 42 3569 4266 - 67

fax: +92 42 3569 4268

<http://pak.sika.com/>

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

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