

PRODUCT DATA SHEET

Sikaflex®-11 FC

One part advanced polyurethane, elastomeric sealant/adhesive

PRODUCT 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, A, O. and Federal Specification TT-S-00230C, Type II, Class B.

USES

As an elastic adhesive for noncritical applications like:

- 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

PRODUCT INFORMATION

Packaging	10.1 fl. oz. (300 ml) cartridge, 20 fl. oz. (600 ml) sausage, 4.5 gal (17 L) in a 5 gal pail
Color	White, Aluminum Gray, Black

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
- Can be used in tamper resistant joints.

APPROVALS / STANDARDS

- ASTM C920 Type S, Grade NS, Class 12.5, Use NT, I, M, A, O
- Federal Specification TTS-00230C, Type II, Class B
- Certified to NSF/ANSI/CAN 61 for potable water (meets applicable requirements of NSF/ANSI 600).

Shelf Life	cartridges/sausages - 12 months pail - 6 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	25 g/L

TECHNICAL INFORMATION

Testing	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.	
Resistance to Weathering	Excellent	
Service Temperature	-40 °F to 170 °F	

APPLICATION INFORMATION

Coverage	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

Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

LIMITATIONS

- Allow 5 day cure at standard conditions when using

Sikaflex®-11 FC in total water immersion situations and prior to painting.

- When overcoating with water, oil and rubber based paints, compatibility and adhesion testing is essential. Consult directly with coating manufacturer.
- Overcoating with solvent based and alcohol based coatings, paints, sealers and/or stains should be avoided.
- Avoid exposure to high levels of chlorine. (Maximum level is 5ppm).

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- Maximum depth of sealant must not exceed 1/2 inch; minimum depth is 1/4 inch.
- 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 cure in the presence of curing silicone sealants.
- 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.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

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. Bond breaker tape or backer rod must be used at bottom or base of joint void to prevent three sided adhesion.

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 or chemical exposure 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.

OTHER RESTRICTIONS

See Legal Disclaimer.

LEGAL DISCLAIMER

- KEEP CONTAINER TIGHTLY CLOSED
- KEEP OUT OF REACH OF CHILDREN
- NOT FOR INTERNAL CONSUMPTION
- FOR INDUSTRIAL USE ONLY
- FOR PROFESSIONAL USE ONLY

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by calling SIKA's Technical Service Department at 1-800-933-7452. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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