

## 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, 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.
- Can be used in tamper resistant joints

#### PRODUCT INFORMATION

<b>Packaging</b>	Disposable 10.1 fl. oz., moisture-proof composite cartridges, 24/case.
<b>Color</b>	White
<b>Shelf Life</b>	12 months in unopened container.
<b>Storage Conditions</b>	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

## TECHNICAL INFORMATION

<b>Shore A Hardness</b>	40–45	(73 °F (23 °C) and 50 % R.H.) (ASTM D-2240)
<b>Tensile Strength</b>	225 psi	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)
<b>Elongation at Break</b>	600 %	(73 °F (23 °C) and 50 % R.H.) (ASTM D-412)
<b>Elastic Recovery</b>	>90 %	(73 °F (23 °C) and 50 % R.H.) (ASTM C-719)
<b>Lap Shear Strength</b>	165 psi	(73 °F (23 °C) and 50 % R.H.) (ASTM D-1002 modified, glass substrate)
<b>Chemical Resistance</b>	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.	
<b>Service Temperature</b>	-40 °F to 170 °F	
<b>Resistance to Weathering</b>	Excellent	

## APPLICATION INFORMATION

<b>Coverage</b>	<b>Width/Depth</b>	<b>1/4"</b>	<b>3/8"</b>	<b>1/2"</b>
	<b>1/4"</b>	24.3		
	<b>3/8"</b>	16.2	10.8	
	<b>1/2"</b>	12.1	8.1	6.1
	<b>3/4"</b>	8.1	5.4	4.0
	<b>1"</b>			3.0
	<b>1.25"</b>			2.4
	<b>1.5"</b>			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.

**Curing Rate**

<b>Tack-free Time (TT-S-00230C)</b>	1 to 2 hours depending on climate
<b>Final Cure</b>	3 to 5 days

## 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.

## 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.

## 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.

## OTHER RESTRICTIONS

See Legal Disclaimer.

## 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.

## 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](http://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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### Product Data Sheet

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