

# Sikaflex®-511

## Low Modulus Sealant

### Technical Product Data (typical values)

Chemical base	One-part Silane Terminated Polymer	
Color	Gray	
Cure mechanism	Moisture-curing	
Density (uncured)	11.7 lb/gal	
VOC (EPA method 24)	0.15 lb/gal (18.4 g/l)	
Non-sag properties	Good	
Application temperature	41 °-95 °F (5 °-35 °C)	
Tack free time <sup>1</sup>	30 min.	
Curing speed	(see diagram 1)	
Shrinkage	<1%	
Shore A-hardness (ASTM D 2240)	15 min.	
Modulus (CSQP 020-3/ISO 868)	58 psi	
Elongation at break (ASTM D 412)	600%	
Glass transition temperature	-49 °F (-45 °C)	
Movement accommodation factor	+100 / -50%	
Service temperature	permanent 16 hours	-40 °-194 °F (-40 °- 90 °C) 248 °F (120 °C)
Shelf life (storage below 77 °F (25 °C))	Unipac Drums & Pails	12 months 9 months

<sup>1)</sup> 73 °F (23 °C) / 50% r.h.

#### Description

Sikaflex®-511 is a multi-purpose non-sag, elastic one-part sealant based on silane-terminated polymer technology, which cures on exposure to atmospheric moisture to form a durable elastomer. Sikaflex®-511 contains no isocyanate or solvent and is manufactured in accordance with ISO 9001 / 14001 quality assurance system and the Responsible Care Program. AAMA 808-3-92 verified.

#### Product Benefits

- AAMA 808-3-92 Verified for Exterior Perimeter Sealing Compounds
- Bonds well to a wide variety of substrates without the need for special pre-treatment
- Resistant to UV radiation
- Very low VOC/solvent free
- Silicone and PVC-free
- Isocyanate-free
- High recovery
- Resistant to aging and weathering
- Elastic
- Low odor
- One-part formulation

#### Areas of Application

Sikaflex®-511 bonds well to a wide variety of substrates and is suitable for making permanent high strength elastic adhesive seals. Compatible substrate materials include wood, metals, metal primers and paint coatings (two-part systems), ceramic materials, plastics and glass. Seek manufacturer's advice before using on transparent materials that are prone to stress cracking.

This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed to

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ensure adhesion and material compatibility.

### Cure Mechanism

Sikaflex®-511 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is lower and the curing reaction proceeds a little more slowly. If Sikaflex®-511 is used in combination with a PUR adhesive, the polyurethane adhesive must be fully cured before seam sealing with Sikaflex®-511.

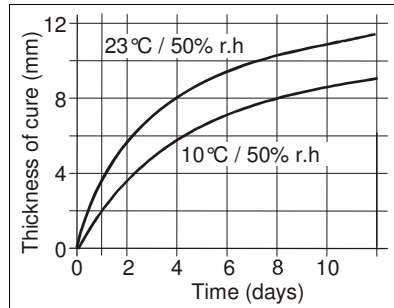


Diagram 1: Curing speed of Sikaflex®-511

### Chemical Resistance

Sikaflex®-511 is resistant to UV radiation, fresh water, seawater and proprietary aqueous cleaning agents; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, concentrated mineral acids, caustic solutions or solvents. The above information is offered for general guidance only. Advice on specific applications will be given on request. Contact the Technical Service Department of Sika Industry at 888-832-7452.

### Method of Application

#### Surface preparation

Surfaces must be clean, dry and free from all traces of grease, oil, wax and dust. The adhesion of the sealant can be improved by wiping the joint with Sika®-Aktivator (a cleaning and activating agent). Advice on specific applications is available from the Technical Service Department of Sika Industry at 888-832-7452. Substrate must have

appropriate corrosion protection prior to application of sealant.

### Application

To ensure satisfactory conditions for curing, do not apply at temperatures below 41°F (5°C) or above 95°F (35°C). The optimum temperature for substrate and sealant is between 59°F (15°C) and 77°F (25°C). For advice on selecting and setting up a suitable pump system please contact the System Engineering Department of Sika Industry at 248-577-0020.

### Tooling and finishing

To facilitate tooling, wet pointing tool with soapy water. Do not use alcohol or alcohol-containing agents.

### Removal

Uncured Sikaflex®-511 may be removed from tools and equipment with suitable solvent. Once cured, the material can only be removed mechanically. Follow solvent manufacturer's warnings and instructions for use. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Do not use solvents on hands!

### Overpainting

Sikaflex®-511 can be overpainted when tack-free. The paint and paint process must be tested for compatibility by carrying out preliminary trials. Sikaflex®-511 should not be exposed to baking temperatures until it has attained full cure. It should be understood that the hardness and film thickness of the paint might impair the elasticity of the sealant and lead to cracking of the paint film.

### Limitations

Avoid applications below 41°F (5°C) and above 95°F (35°C) as improper surface properties could result. Since the material is moisture cured, provide sufficient exposure to air. Do not apply over cured silicones or in the presence of curing silicones or urethanes. Avoid contact with

excessive amounts of alcohols or alcohol-containing mixtures, as some temporary initial surface tackiness may result. Not designed for direct glazing applications.

**CAUTION: IRRITANT.** Contains Silane-Terminated Prepolymer (CAS: Mixture). May cause eye/skin/respiratory irritation.

### HMIS

Health	1
Flammability	1
Reactivity	0
Personal Protection	C

**FIRST AID: Eyes** - Hold eyelids apart and flush thoroughly with tepid water for 15 minutes. **Skin** - Remove contaminated clothing. Wash skin thoroughly for 15 minutes with soap and tepid water. **Inhalation** - Remove to fresh air. **Ingestion** - Do not induce vomiting. Contact physician. **In all cases contact a physician immediately if symptoms persist.**

### Further Information

Copies of the following publications are available at our website [www.sikaindustry.com](http://www.sikaindustry.com).  
- Material Safety Data Sheets  
- Product Data Sheets

### In case of emergency call:

**Chemtrec:** 800-424-9300  
**International:** 703-527-3887

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

### Packaging Information

Drum	51.5 gallons
Pail	6 gallons
Unipac	300 and 600 ml

Further information available at:  
[www.sikaindustry.com](http://www.sikaindustry.com)

Sika Corporation  
Industry Division  
30800 Stephenson Highway  
Madison Heights, Mi 48071  
USA  
Tel. 248 577 0020  
Fax 248 577 0810



### Value Basis

All technical data stated on this Product Data Sheet are based on the results of laboratory tests only. Actual measured data in the field may vary due to site specific conditions which are not known to Sika and beyond our control.

### Storage and Handling

Store product in closed container in cool dry place (below 77°F, 25°C) when not in use. Protect from frost and humidity. Avoid direct contact. Wear personal protective equipment (chemical resistant gloves/ goggles/ clothing) to prevent contact with skin and eyes. Use with adequate general and local exhaust. Use properly fitted NIOSH respirator if ventilation is poor. Remove contaminated clothing and launder before reuse.

### Clean Up

Avoid contact. Uncured material can be removed from tools and equipment using suitable solvent. Follow solvent manufacturer's warnings and instructions for use. Cured product can only be removed mechanically. Wash thoroughly with soap and water after handling. Do not use solvents on hands! In case of spill, wear personal protective equipment (chemical resistant goggles/ clothing/ gloves). Ventilate area and collect spill. If ventilation is poor use properly fitted NIOSH respirator. Contain spill and collect with absorbent material. Dispose of in accordance with applicable local, state and federal regulations.

### Limited Material Warranty

SIKA warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of

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Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, product label and Material Safety Data Sheet which are available at [www.sikaindustry.com](http://www.sikaindustry.com). Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instruction for each Sika product as set forth in the current Product Data Sheet, product label and Material Safety Data Sheet prior to product use.

Further information available at:  
[www.sikaindustry.com](http://www.sikaindustry.com)

Sika Corporation  
Industry Division  
30800 Stephenson Highway  
Madison Heights, Mi 48071  
USA  
Tel. 248 577 0020  
Fax 248 577 0810

