



TBP Converting, Inc.
SikaFlex 211 US

Sikaflex®-211 US

Multi Purpose General Sealant

Technical Product Data (typical values) *Results may differ based upon statistical variations depending upon mixing methods and equipment, temperature, application methods, test methods, actual site conditions and curing conditions.

Chemical base	1-C polyurethane
Color	White, Gray
Cure mechanism	Moisture Curing
Density (uncured)	12.2 lb/gal
VOC (EPA method 24)	0.35 lb/gal (42 g/l)
Non-sag properties	Good
Application temperature	product 40°F - 104°F (5°C - 40°C)
Tack free time ¹	40 min
Curing speed	(see diagram 1)
Shore A-hardness (ASTM D 2240)	30
Movement accommodation factor	+/- 25%
Elongation at break (ASTM D 412)	550%
Tensile-strength (ASTM D 412)	115 psi
Service temperature	permanent -40°F - 190°F (-40°C - 88°C)
Shelf life (storage below 77°F (25°C))	9 months

¹) 73°F (23°C) / 50% r.h.

Industry

Description

Sikaflex®-211 US is a one-component non-sag highly elastomeric, high performance purpose built interior/exterior sealant that cures on exposure to atmospheric humidity to a tough, durable, flexible seal with good weatherability system capable of +/-25% joint movement. Sikaflex®-211 US is manufactured in accordance with ISO 9001 / 14001 quality assurance system and the Responsible Care Program.

Product Benefits

- Excellent adhesion – bonds to a wide variety of substrates without surface treatments/primers
- Highly elastic – cures to a tough, durable, flexible consistent seal
- Good weatherability
- Excellent gunnability and tooling characteristics
- Can be overpainted
- Exceptional cut and tear resistance
- Good non –sag characteristics
- Short cut off string
- Low shrinkage

- Sealing exterior and interior lap seams, exposed and concealed joints and rivet seams in transportation and industrial applications.
- Bonds well to a wide variety of substrates and is suitable for creating a permanent elastic seal. Typical substrates: aluminum, steel, coated metals, wood, metal primers and paint coating (2-c systems), painted plastics and other substrates.
- Seek manufacturer's advice before using on transparent and pigmented materials that are prone to stress cracking.
- Advice on specific applications will be given on request. Contact the Technical Service Department of Sika Industry at TSMH@us.sika.com.

Cure Mechanism

Sikaflex®-211 US cures by reaction with atmospheric moisture. At low

Areas of Application



temperatures the water content of the air is generally lower and the curing reaction proceeds somewhat slower (see diagram).

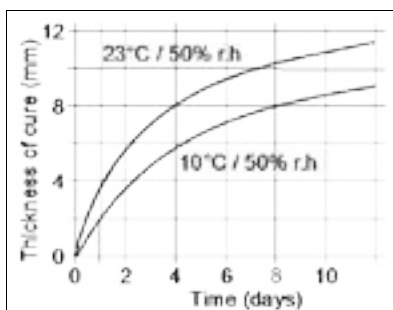


Diagram 1: Curing speed Sikaflex®-211 US

Chemical Resistance

Sikaflex®-211 US is resistant to fresh water, seawater, limewater, sewage effluent, dilute acids and dilute caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, alcohol, concentrated mineral acids and concentrated 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 tsmh@us.sika.com.

Method of Application

Surface preparation

Surfaces must be clean, dry and free from all traces of grease, oil and dust. As a rule, the substrates must be prepared in accordance with the instructions given in the current Sika Primer Chart. Advice on specific applications is available from the Technical Service Department of Sika Industry at tsmh@us.sika.com.

Application

Recommended application temperatures: 40°F to 104°F. For cold weather application, store units at approximately 70°F; remove just prior to using. Make sure joint is frost free. Cut tip of plastic nozzle to joint size. Puncture air tight seal. Install with hand or power operated caulking gun. Suitable for use in manufacturing environments using

industry standard industrial pump equipment.

Tooling and finishing

Tooling and finishing must be carried out within the tack free time of the sealant. Finishing agents or lubricants must be tested for suitability/compatibility.

Removal

Uncured Sikaflex®-211 US can be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically. Strictly follow solvent manufacturer's instructions for use and warnings. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikaflex®-211 US can be overpainted when tack-free. The paint and paint process must be tested for compatibility by carrying out pre-liminary trials. Sikaflex®-211 US 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 may impair the elasticity of the sealant and lead to cracking of the paint film with time.

Limitations

Avoid application below 40°F (5°C) and above 104°F (40°C). Do not apply on frozen or wet surfaces or through standing water. Do not apply over silicones or in the presence of curing silicones. Contact with alcohol or alcohol-containing solvents will prevent cure.

WARNING: IRRITANT, SENSITIZER. Contains 1,2-Benzenedicarboxylic acid, di-C9-11-branched alkyl esters, C10-rich (CAS: 68515-49-1), Polyisocyanate prepolymer TDI based (CAS:57451-08-8), titanium dioxide (CAS:13463-67-7), xylene (CAS:1330-20-7), ethylbenzene (CAS:100-41-4), and quartz (SiO₂) (CAS:14808-60-7).

Harmful if swallowed/inhaled in high concentrations. Causes skin/eye irritation. May cause allergic respiratory reaction after prolonged contact. Reports have associated repeated and prolonged exposure to some of the chemicals in this product with permanent brain, liver, kidney and nervous system damage. **Intentional misuse by deliberate concentration and inhalation of vapors may be harmful or fatal.**

WARNING! This product contains a chemical known in the State of California to cause cancer and birth defects or other reproductive harm.

HMIS

Health	*2
Flammability	0
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. Dilute with water. Contact physician. **In all cases contact a physician immediately if symptoms persist.**

Further Information

For further information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the actual Material Safety Data Sheets containing physical, ecological, toxicological and other safety related data. It is highly recommended to read the actual Material Safety Data Sheet before using the product.

- **KEEP OUT OF REACH OF CHILDREN**
- **NOT FOR INTERNAL CONSUMPTION**
- **FOR INDUSTRIAL USE ONLY**
- **KEEP CONTAINER TIGHTLY CLOSED**
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Copies of the following publications are available on our website www.sikausa.com:

- Material Safety Data Sheets
- Product Data Sheet

In case of emergency call:
Chemtrec: 800-424-9300
International: 703-527-3887

Packaging Information

Cartridge	300 ml
Unipac	600 ml

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.

Handling and Storage

Use adequate local and mechanical ventilation. Wear protective equipment (chemically resistant gloves/goggles/clothing) to prevent direct contact with skin and eyes. Use properly fitted NIOSH vapor cartridge respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing after use. Store product between 41°F and 95°F (5°C and 35°C) in tightly sealed container in a cool, dry well-ventilated area away from ignition sources. Storage temperature of < 77°F (25°C) is most highly recommended to ensure maximum shelf life. In case of spill, ventilate area. Open doors and windows. Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use properly fitted NIOSH respirator. Confine spill, collect using noncombustible absorbent material and place in properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations.

Cleanup

In case of spill, ventilate area. Open doors and windows. Wear chemical resistant gloves/goggles/clothing. In absence of proper ventilation use

properly fitted NIOSH respirator. Confine spill, collect using noncombustible absorbent material and place in properly sealed container. Dispose of excess product 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 labor. **NO OTHER WARRANTIES IMPLIED OR EXPRESS SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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