

Sikaflex®-505 UV

One-Component Silane-Terminated Polymer Adhesive/Sealant

Technical Product Data

Chemical base	1-C Silane terminated polymer
Cure mechanism	Moisture-curing
Non-Sag Properties	Non-Sag
Tack free time ¹	< 1 hour
Skin time ¹	< 0.5 hour
Shore A-hardness (ASTM D 2240)	45
Tensile strength (ASTM D 412)	225 psi
Tensile lap-shear strength (ASTM D 1002)	275 psi
Elongation at break (ASTM D 412)	275%
UV Ratings	No change in appearance or properties after 2000 hrs UV-A exposure
Staining	Non-staining
Corrosivity	Non-corrosive
Service Temperature	Up to 400°F for short periods
Shelf life (storage below 77°F (25°C))	9 months, unopened

¹⁾ 77°F (25°C) / 50% r.h.

Description

Sikaflex®-505UV is a one-component silane terminated polymer (STP) with excellent UV and weathering resistance, and excellent adhesion to a wide variety of substrates. It has a nine month shelf life when stored unopened at or below 77°F. This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Product Benefits

- Contains no solvents or isocyanates
- Low VOC content
- Excellent adhesion to many substrates including aluminum, steel, glass, marble, wood and many different types of plastic
- Excellent tooling characteristics
- Fast curing even at low temperatures
- Highly weather resistant
- Excellent UV resistance
- Easily paintable
- Non-yellowing

Areas of Application

Sikaflex®-505UV is suitable for use on a wide variety of substrates; including aluminum, steel, glass, marble, wood and many different types of plastic. Seek plastic manufacturer's advice before using on plastics that are prone to stress cracking.

Industry



Cure Mechanism

Sikaflex®-505UV is a silane-terminated polymer which cures on exposure to the air (atmospheric moisture). The chemical reaction is set in motion as soon as the product is extruded. Initially paste like in consistency, Sikaflex®-505UV cures to form a high grade elastomer.

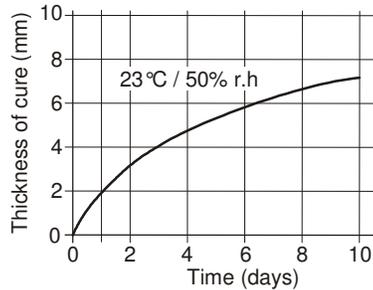


Diagram 1: Curing speed Sikaflex®-505UV

Chemical Resistance

Good resistance to water, various dilute acids and alkalis, vegetable oil, mineral oil, salt solutions, and kerosene. Not resistant to organic solvents, gasoline, paint thinner, strong acids and strong alkalis. The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of Application

Surface preparation

Surfaces must be clean, dry and free from all traces of grease, oil and dust. Remove all old sealant before applying this product. Preliminary tests for optimal adhesion should be performed. Advice on specific applications is available from the Technical Service Department of Sika Industry.

Application

Unipacs: Recommended application temperatures: 40°F to 95°F. For temperatures below 40°F it is recommended to condition units to approximately 70°F (21°C) until just prior to use. Place unipac in the application gun and snip off the closure clip. Cut off the tip of the

nozzle to give desired adhesive bead geometry. For satisfactory results, the adhesive must be applied with a hand operated cartridge gun, piston-type compressed-air or battery powered gun.

Tooling and finishing

To facilitate tooling, wet pointing tool or finger with soap solution for best results.

Removal

Uncured Sikaflex®-505UV may be removed from tools and equipment with mineral spirits or another suitable solvent. Strictly follow solvent manufacturer's instructions for use and warnings. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Do not use solvents on hands!

Overpainting

Sikaflex®-505UV can be over-painted before it becomes tack-free. The paints, and paint process must be tested for compatibility by carrying out preliminary trials. The hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film.

Limitations

Since system is moisture-cured, permit sufficient exposure to air. Do not apply over silicones or in the presence of curing silicones or curing urethanes. Avoid contact with excessive amounts of alcohols or alcohol-containing mixtures, as some temporary initial surface tackiness may result.

Handling and Storage

Avoid direct contact. Wear protective equipment (chemical resistant gloves/goggles/clothing) to prevent contact with skin and eyes. Use only in well ventilated areas. Open doors and windows during use. Use properly fitted NIOSH approved

respirator if ventilation is poor. Wash thoroughly with soap and water after use. Remove contaminated clothing and launder before reuse. For maximum shelf life, store unopened product at or below 77°F.

Clean Up

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 absorbent material and place in a properly sealed container. Dispose of excess product in accordance with applicable local, state and federal regulations.

First Aid Measures

Inhalation - Remove to fresh air.
Eyes - Rinse for 15 minutes with tepid water. Call physician.
Skin - Wash thoroughly with soap and tepid water. Remove contaminated clothing.
Ingestion - Do not induce vomiting. Dilute with water. Call physician. **In all cases contact a physician immediately if symptoms persist.**

Further Information

Copies of the following publications are available on request at www.sikaindustry.com or by calling 888-832-7452:

- 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
FOR PROFESSIONAL USE ONLY**

Further information available at:
www.sikaindustry.com

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Packaging Information

Unipac	600 ml
Cartridge	300 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.

Health and Safety Information

For information and advice regarding transportation, handling, storage and disposal of chemical products, users should refer to the Material Safety Data Sheet 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.

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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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. 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:
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