

Sikaflex® 521 UV

UV Resistant Low Modulus Sealant

Technical Product Data (Typical Values)

Chemical base		One-part Silane Terminated Polymer
Color		White/Black
Cure mechanism		Moisture-curing
Density (uncured)		11.7 lb/gal
VOC (EPA method 24)		0.12 lb/gal (14.9 g/l)
Non-sag properties		Good
Application temperature	product	41 ° - 95 °F (5 ° - 35 °C)
Tack free time ¹		30 min
Curing speed		(see diagram 1)
Shrinkage		2.0%
Shore A-hardness (ASTM D 2240)		40
Tensile strength (ASTM D 412)		260 psi
Elongation at break (ASTM D 412)		400%
Tear propagation resistance (ASTM D 624)		31 pli
Glass transition temperature		-76 °F (-60 °C)
Movement accommodation factor		10%
Service temperature	permanent	-40 ° - 194 °F (-40 ° - 90 °C)
Long term	4 hours	284 °F (140 °C)
Short term	1 hour	302 °F (150 °C)
Shelf life (storage below 77 °F (25 °C))	Unipac & Cartridge	9 months
	Drums & Pails	6 months

¹⁾ 73 °F (23 °C) / 50% r.h.

Description

Sikaflex®-521 UV is a multi-purpose, UV resistant, non-sag, elastic, one-part silane-terminated polymer sealant, which cures on exposure to atmospheric moisture to form a durable elastomer. Sikaflex®-521 UV is solvent and isocyanate free. Sikaflex®-521 UV is manufactured in accordance with ISO 9001 / 14001 quality assurance system and the responsible care program.

Product Benefits

- 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 electrical resistance
- Resistant to aging and weathering
- Elastic
- Low odor
- One-part formulation

Areas of Application

Sikaflex®-521 UV bonds well to a wide variety of substrates and is suitable for making permanent, high strength elastic seals. Compatible substrate materials include wood, metals, (particularly aluminum including anodized components), sheet steels (including phosphated, chromated and zinc-plated components), metal primers and paint coatings (two-part systems), ceramic materials, plastics and glass. Seek manufacturer's advice before using on transparent

Industry



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 ensure adhesion and material compatibility.

Cure Mechanism

Sikaflex®-521 UV cures by reaction with atmospheric humidity. At low temperatures the water content of the air is lower and the curing reaction proceeds a little more slowly. If Sikaflex®-521 UV is used in combination with a PUR adhesive, the latter must be fully cured before seam sealing with Sikaflex®-521 UV.

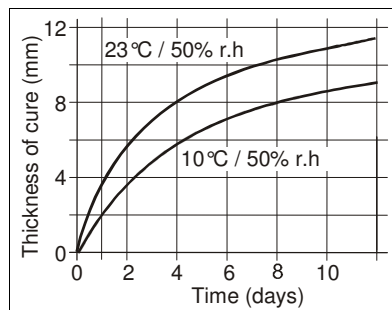


Diagram 1: Curing speed Sikaflex® 521 UV

Chemical Resistance

Sikaflex®-521 UV 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®-521 UV may be removed from tools and equipment with suitable solvent. Follow solvent manufacturer's instructions for use and warnings. Once cured, the material can only be removed mechanically. Wash hands thoroughly with soap and water after handling. Do not use solvents! Uncured Sikaflex®-521 UV may be removed from tools and equipment with Sika® Remover-208 or an-other suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using a suitable industrial hand cleanser and water. Do not use solvents on skin!

Overpainting

Sikaflex®-521 UV may be over-painted before it becomes tack-free. The paint, and paint process must be tested for compatibility by carrying out preliminary trials. 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.

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	2
Flammability	1
Reactivity	0
Personal Protection	C

First Aid Measures

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 on request at www.sikaindustry.com:

- Material Safety Data Sheets
- Product Data Sheets

In case of emergency call:

Chemtec: 800-424-9300
International: 703-527-3887

Further information available at:
www.sikaindustry.com

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

Packaging Information

Cartridge	10.1 fl. oz.
Unipac	10.1 fl. oz. 20.0 fl. oz.
Pail	6.1 gal
Drum	51.5 Gallons

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

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 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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