

Sikaflex®-521 UV

Excellent adherent, weathering resistant sealant

Technical Product Data:

Chemical base	Hybrid
Colour (CQP ¹⁾ 001-1)	White, grey, black
Cure mechanism	Moisture-curing
Density (uncured) (CQP 006-4)	1,4 kg/l approx.
Non-sag properties (CQP 061-1)	Good
Application temperature	5°C to 40°C
Tack-free time ²⁾ (CQP 019-1)	30 min. approx.
Curing speed (CQP 049-1)	(see diagram)
Shrinkage (CQP 014-1)	2% approx.
Shore A hardness (CQP 023-1 / ISO 868)	40 approx.
Tensile strength (CQP 036-1 / ISO 37)	1.8 N/mm ² approx.
Elongation at break (CQP 036-1 / ISO 37)	400% approx.
Tear propagation resistance (CQP 045-1 / ISO 34)	5.5 N/mm, approx.
Glass transition temperature (CQP 509-1 / ISO 4663)	-50°C approx.
Electrical resistance (CQP 079-2 / ASTM D 257-99)	10 ¹⁰ Ω cm approx.
Thermal resistance (CQP 513-1)	4 hrs 140°C 1 hr 150°C
Service temperature	-40°C - 90°C
Shelf life (stored below 25°C) (CQP 016-1)	12 months

¹⁾ CQP = Corporate Quality Procedure

²⁾ at 23°C and 50% relative humidity

Description:

Sikaflex®-521 UV is a multi-purpose non-sag elastic one-part sealant based on a polyurethane-hybrid compound, which cures on exposure to atmospheric moisture to form a durable elastomer.

Sikaflex®-521 UV contains no isocyanate and is manufactured in accordance with the ISO 9001/14001 quality assurance system.

Product benefits:

- 1-C hybrid formulation
- Elastic
- Ageing and weather resistant
- Bonds well to a wide variety of substrates without the need for special pre-treatment
- Can be overpainted
- Can be sanded
- Low odour
- Non-corrosive
- High electrical resistance
- VOC and solvent-free
- Silicone-free
- PVC-free

Areas of application:

Sikaflex®-521 UV adheres well to a wide variety of substrates and is suitable for elastic sealing and bonding. Suitable substrate materials are timber, metals, metal primers and paint coatings (two-part systems), ceramic materials and plastics.

Seek manufacturer's advice before using on transparent materials that are prone to stress cracking.

This product is suitable for professional experienced 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 moisture. 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.

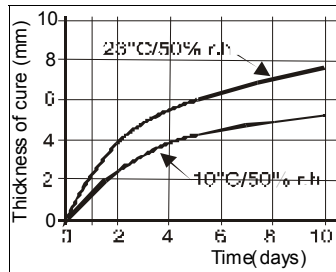


Diagram 1: Curing speed for Sikaflex®-521 UV

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.

Method of application:

Surface preparation. The 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 205 (a cleaning and activating agent) or possibly applying the appropriate Sika® Primer if necessary.

Directions for the preparation and treatment of different substrates are given in the Sika® Pre-treatment Chart.

Application.

For cartridges: pierce the cartridge membrane.

For Unipacs: remove the 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 gun or pump-operated bulk dispensing equipment.

The optimum temperature for substrate and sealant is between 15°C and 25°C.

Tooling and finishing. Tooling and finishing must be carried out within the tack-free time of the sealant. We recommend the use of Sika® Tooling Agent N. Other products must be tested for suitability/compatibility prior to use.

Removal. Uncured Sikaflex®-521 UV may be removed from tools and equipment with Sika® Remover-208. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika Handclean Towel or suitable industrial hand cleanser and water. Do not use solvents!

Overpainting. Sikaflex®-521 UV can be overpainted before tack-free. The paint 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.

Further information:

Copies of the following publications are available on request:

- Material Safety Data Sheet
- Sika® Pre-treatment chart for Polyurethane Hybrids
- General guidelines for Bonding and Sealing with Sikaflex®

Packaging information:

Cartridge	300 ml
Unipac	600 ml

Value Bases:

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Health and Safety Information:

For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Safety Data Sheet containing physical, ecological, toxicological and other safety-related data for the appropriate type of substance.

Note:

The information, and, in particular, the recommendations relating to the application and end-use of Sika products, are given in good faith based on Sika's current knowledge and experience of the products when properly stored, handled and applied under normal conditions. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Australian version of the Product Data Sheet for the product concerned, copies of which will be supplied on request.

