Industry

Sikaflex®-521 UV

Excellent adherent, weathering resistant sealant

Technical Product Data

Chemical base	1-C polyurethane-hybrid
Colour (CQP[1] 001-1)	White, grey, black
Density (uncured) (CQP 006-4)	1.4 kg/L approx.
Non-sag properties (CQP 061-1)	Good, with no tendency to sag
Cure mechanism	Humidity-curing
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.
Elongation at break (CQP 036-1 / ISO 37)	400% approx.
Tensile strength (CQP 036-1 / ISO 37)	1.8 N/mm^2 approx.
Tear propagation resistance (CQP 045-1 / ISO 34)	5.5 N/mm approx.
Glass transition temperature (CQP 509-1 / ISO 4663)	-60°C approx.
Movement accommodation factor	10% approx.
Volume resistivity (CQP 079-2 / ASTM D 257-99)	10^{10} Ω cm approx.
Application temperature	5°C - 35°C
Service temperature (CQP 513-1) permanent Short term 4 hours 1 hour	-40°C to 90°C 140°C 150°C
Shelf life (storage below 25°C) (CQP 016-1)	9 months

[1] CQP = Corporate Sika Quality Procedures [2] At 23°C and 50% relative humidity

Description

Sikaflex®-521 UV is a multi-purpose non-sag elastic 1-C sealant based on a polyurethane-hybrid compound, which cures on exposure to atmospheric humidity to form a durable elastomer.
Sikaflex®-521 UV is manufactured in accordance with ISO 9001 / 14001 quality assurance system.

Product Benefits

- 1-C hybrid-formulation
- Elastic
- UV, ageing and weathering 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 Volume resistivity
- VOC and solvent-free
- Silicone and PVC-free

Areas of Application

Sikaflex®-521 UV bonds well to a wide variety of substrates and is suitable for making permanent elastic seals of high bonding strength. Suitable substrate materials are timber, metals, metal primers and paint coatings (2-C 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. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry

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.

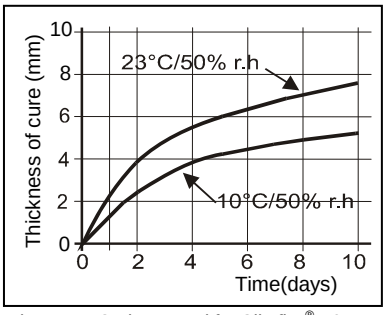

Diagram 1:Curing speed for Sikaflex®-521 UV

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, and dust. The adhesion of the sealant can be improved by wiping the joint faces with (a cleaning and activating agent or the appropriate Sika® Primer.

Directions for the preparation and treatment of different substrates are given in the appropriate Sika Primer Chart.

Advice on specific applications is available from the technical service department of Sika Canada.

Application

Cartridges: Pierce cartridge membrane.

Sausages: Place sausage in the application gun and snip off the closure clip.

Cut off the tip of the nozzle to give desired sealant bead geometry. For satisfactory results the sealant must be applied with a hand-operated cartridge gun, piston type compressed-air gun or pump-operated bulk dispensing equipment.

To ensure satisfactory conditions for curing, do not apply at tempe-ratures below 5°C or above 35°C. The optimum temperature for substrate and sealant is between 15°C and 25°C.

For advice on selecting and setting up a suitable pump system, as well as on the techniques of pump operated application, please contact the System Engineering department of Sika Canada.

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.

Clean up

Uncured Sikaflex®-521 UV may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

Hands and exposed skin should be washed immediately using Sika® Hand Cleaner or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikaflex®-521 UV can be overpainted before becoming 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 Sheets
- Sika Primer Chart

Packaging Information

Cartridge	300 mL
Sausage	600 mL
Pail (on request)	23 L
Drum (on request)	195 L

Value Basis

All technical data stated in this Product Data Sheet and laboratory test based. Current measured values may vary due to factors 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 Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data.

All Product Data Sheets and Material Safety Data Sheets are also available on our web site.

Legal Notes

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, within their shelf life. 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 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 Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet.

Further information available at:
www.sika.ca

Sika Canada Inc.
601 Delmar Avenue
Pointe-Claire, QC H9R 4A9
Tel : 514-697-2610
1-800-689-7452
Fax : 514-697-3910

An ISO 9001:2000 certified company
Pointe-Claire : ISO 14001:2004 certified EMS