

Sikaflex[®]-512 Caravan

Excellent adherent, weather resistant sealant

Technical Product Data

Chemical base	1-C polyurethane hybrid	
Colour (CQP ¹ 001-1)	White	
Cure mechanism	Moisture curing	
Density (uncured) (CQP 006-4)	1.4 kg/l approx.	
Non-sag properties	Good	
Application temperature	5°C to 35°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)	-60°C	
Electrical resistance (CSQP 079-2 / ASTM D 257-99)	10 ¹⁰ Ω cm approx.	
Movement accommodation factor	10% approx.	
Service temperature (CQP 513-1)	permanent	-40°C to 90°C
Short term	4h	140°C
	1h	150°C
Shelf life (storage below 25°C) (CQP 016-1)	cartridge / unipack	9 months
	drum / hobbock	9 months

¹⁾ CQP = Corporate Quality Procedure

²⁾ 23°C (73°F) / 50% r.h.

Description

Sikaflex[®]-512 Caravan 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[®]-512 Caravan is manufactured in accordance with ISO 9001/14001 quality assurance system and with the responsible care program.

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 electrical resistance
- VOC and solvent-free
- Silicone and PVC free

Areas of Application

Sikaflex[®]-512 Caravan 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[®]-512 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[®]-512 is used in combination with a PUR adhesive, the latter must be fully cured before seam sealing with Sikaflex[®]-512.

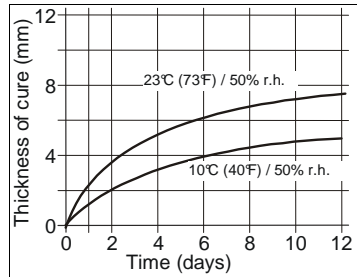


Diagram 1: Curing speed for Sikaflex[®]-512 Caravan

Chemical Resistance

Sikaflex[®]-512 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 Sika[®] Hybrid Aktivator (a cleaning and activating agent) or possibly applying 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 Industry.

Application

Cartridges: Pierce cartridge membrane.

Unipacs: Place unipac 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 temperatures 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 Industry.

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[®]-512 Caravan 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[®] Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikaflex[®]-512 Caravan can be over-painted with most conventional paint systems.

The paint must be tested for compatibility by carrying out preliminary trials and the best results are obtained if the sealant is allowed to cure fully first, especially in the case of baked enamels.

Please note that non-flexible paint systems may impair the elasticity of the adhesive, impair joint movement and lead to cracking of the paint film.

PVC based paints and paints that dry by oxidation (oil or alkyd resin based) are generally not suitable for application over Sikaflex[®]-512 Caravan and two pack paint systems are preferred.

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- Sika Primer Chart
- General Guidelines Bonding and Sealing with Sikaflex[®] products

Packaging Information

Cartridge	300 ml
Unipac	400 + 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 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.

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 in accordance with Sika's recommendations. 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 user of the product must test the product's suitability for the intended application and purpose. Sika reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



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