

Sikaflex®-292

Structural adhesive for marine applications

Technical Product Data:

Chemical base	1-C polyurethane	
Colour (CQP ¹⁾ 001-1)	White	
Cure mechanism	Humidity-curing	
Density (uncured) (CQP 006-4)	1,2 kg/l approx.	
Non-sag properties (CQP 061-1)	Very good	
Application temperature	10°C - 35°C	
Tack-free time ²⁾ (CQP 019-1)	40 min. approx.	
Curing speed (CQP 049-1)	(see diagram)	
Shrinkage (CQP 014-1)	6% approx.	
Shore A hardness (CQP 023-1 / ISO 868)	55 approx.	
Tensile strength (CQP 036-1 / ISO 37)	4 N/mm ² approx.	
Elongation at break (CQP 036-1 / ISO 37)	> 300%	
Tear propagation resistance (CQP 045-1 / ISO 34)	9 N/mm approx.	
Tensile-shear strength (CQP 046-1 / ISO 4587)	2,5 N/mm ² approx.	
Glass transition temperature (CQP 509-1 / ISO 4663)	-40°C approx.	
Electrical resistance (CQP 079-2 / ASTM D 257-99)	5 x 10 ⁹ Ω cm approx.	
Service temperature (CQP 513-1)	permanent	-40°C to +90°C
Short term	4 hours	130°C
	1 hour	150°C
Shelf life (storage below 25°C) (CQP016-1)	12 months	

¹⁾ at 23°C and 50% relative humidity

Description:

Sikaflex®-292 is a non-sag one-component polyurethane adhesive of thixotropic, paste-like consistency which cures on exposure to atmospheric moisture to form a durable elastomer. Sikaflex®-292 exhibits excellent adhesive properties and a high degree of mechanical strength.

Sikaflex®-292 is manufactured in accordance with the ISO 9001/14001 quality assurance system and meets the regulations set out by the International Maritime Organisation (IMO).

Product benefits:

- One component formulation
- Elastic
- Can be overpainted
- Good gap-filling capabilities
- Capable of withstanding high dynamic stresses
- Vibration-damping
- Non-corrosive
- Electrically non-conductive
- Bonds well to a wide variety of substrates

Areas of application:

Sikaflex®-292 is suitable for structural joints in marine constructions which will be subjected to high dynamic stresses. Suitable substrate materials are timber, metals, particularly aluminium (including anodised finishes), metal primers and paint coatings (two-component systems), ceramic materials, plastics such as GRP (unsaturated polyester resin), ABS, etc. Clear plastics and mineral glass should not be bonded with Sikaflex®-292.

Industry



Cure mechanism:

Sikaflex®-292 cures by reaction with atmospheric moisture. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly (see diagram).

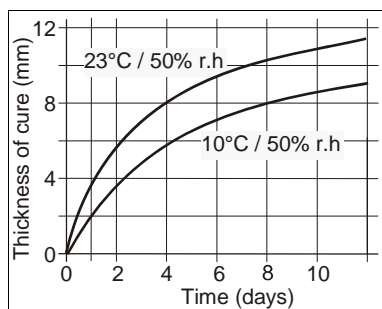


Diagram 1: Curing speed for Sikaflex®-292

Chemical Resistance

Sikaflex®-292 is resistant to fresh water, seawater, limewater, sewage effluent, dilute acids and caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, alcohol, concentrated mineral acids and 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. Surfaces must be clean, dry and free from all traces of grease, fat, oil and dust. As a rule the faces to be bonded must be prepared in accordance with the instructions given in the current edition of the Sika® Primer Table for Marine Applications.

Application. Pierce the cartridge membrane completely. Cut off the tip of the nozzle. To ensure a uniform thickness of adhesive bed, we recommend that the adhesive be applied in the form of a triangular bead (see illustration).

Do not apply at temperatures below 10°C or above 35°C. The optimum temperature for substrate and adhesive is between 15°C and 25°C.

For cartridge application we recommend the use of a compressed-air piston-type cartridge gun or a heavy-duty hand-operated gun.

Tooling and finishing. Tooling and finishing must be carried out within the tack-free time of the adhesive. We recommend the use of Sika® Tooling Agent N. Finishing agents must be tested for suitability / compatibility.

Overpainting. Sikaflex®-292 can be overpainted when tack-free. The paint must be tested for compatibility by carrying out preliminary trials. Baked enamels should not be applied to Sikaflex®-292 until the adhesive has attained full cure. It should be understood that the hardness and film thickness of the paint may impair the elasticity of the adhesive and may lead to cracking.

Removal. Uncured Sikaflex®-292 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 a suitable industrial hand cleanser and water. Do not use solvents!

Important:

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 this type of product.

Packaging information:

Cartridge	300 ml
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Further information:

Copies of the following publications are available on request:

- Primer Chart for Marine Applications
- Sika® Marine Application Guide
- Material Safety Data Sheet
- General guidelines for bonding and sealing with Sikaflex® products.

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.

