

## Product Data Sheet

Version 10/2010 (03-2011)

**Sikaflex®-292i**

## Structural Adhesive for Marine Applications

## Technical Data

Chemical Base	One-component polyurethane
Colour (CQP <sup>1</sup> 001-1)	White
Cure Mechanism	Moisture-curing
Density (uncured) (CQP 006-4)	Approx. 1.3 kg/l
Non-Sag Properties (CQP 061-1)	Very good
Application Temperature	10°C to 35°C
Tack-Free Time <sup>2</sup> (CQP 019-1)	Approx. 40 minutes
Curing Speed (CQP 049-1)	See Diagram
Shrinkage (CQP 014-1)	Approx. 2%
Shore A Hardness (CQP 023-1/ISO 868)	Approx. 50
Tensile Strength (CQP 036-1/ISO 37)	Approx. 3 MPa
Elongation at Break (CQP 036-1/ISO 37)	> 300%
Tear Propagation Resistance (CQP 045-1/ISO 34)	Approx. 8 N/mm
Tensile Lap-Shear Strength (CQP 046-1/ISO 4587)	Approx. 2.0 MPa
Glass Transition Temperature (CQP 509-1/ISO 4663)	Approx. -40°C
Electrical Resistance (CQP 079-2/ASTM D 257-99)	Approx 5 x 10 <sup>9</sup> Ω cm
Service Temperature (CQP 513-1)	-40°C to 90°C
	Short-term
	4 hours - 120°C
	1 hour - 140°C
Shelf Life (Storage below 25°C) (CQP 016-1)	12 months
<sup>1</sup> CQP = Corporate Quality Procedure; <sup>2</sup> 23°C and 50% Relative Humidity	

## Description

Sikaflex®-292i 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®-292i exhibits excellent adhesive properties and a high degree of mechanical strength. Sikaflex®-292i meets the low spread of flame requirements set out by the International Maritime Organisation (IMO). Sikaflex®-292i is manufactured in accordance with ISO 9001 and ISO 14001 Quality Assurance Systems.

## Product Benefits

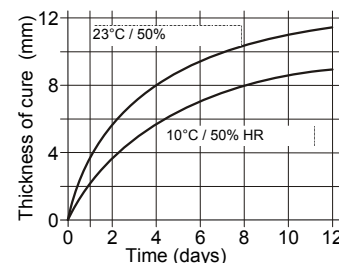
- One-component formulation;
- Elastic with good gap-filling properties;
- Can be over-painted;
- Capable of withstanding high dynamic stresses; vibration damping;
- Non corrosive and electrically non-conductive;
- Bonds well to a wide variety of substrates.

## Areas of Application

Sikaflex®-292i is suitable for structural joints in marine construction that will be subjected to high dynamic stresses. Suitable to bond metals, particularly aluminum (including anodized finishes), metal primers and paint coatings (2-C systems), or ceramic materials, plastics, such as GRP (unsaturated polyester resin), ABS, etc. Clear plastics and mineral glass should not be bonded with Sikaflex®-292i. This product is suitable for professional experienced users only. Testing with actual substrates and conditions must be performed to ensure adhesion and material compatibility.

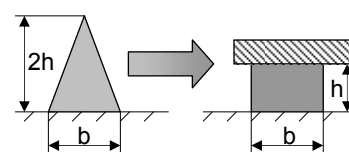


<b>Cure Mechanism</b>	Sikaflex®-292i cures by reaction with atmospheric moisture. At low temperatures, the water-content of the air is generally lower and the curing reaction proceeds more slowly (see diagram).
<b>Chemical Resistance</b>	Sikaflex®-292i is <b>resistant</b> to fresh-water, sea-water, lime-water, sewage effluent, diluted acids and caustic solutions; <b>temporarily resistant</b> to fuels, mineral oils, vegetable and animal fats and oils; <b>not resistant</b> 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 upon request.
<b>Surface Preparation</b>	Surfaces must be clean, dry, and free of dust, oil and grease. As a rule, the surfaces must be prepared in accordance with the instructions given in the current edition of the Sika Marine Application Guide. Advice on specific applications is available from our Industry Technical Services Department.
<b>Application</b>	<b>Cartridges</b> - Pierce cartridge membrane. <b>Sausages</b> - Place sausage in the application gun and snip off the closure clip. Cut off the tip of the nozzle. To ensure uniform thickness of adhesive when compressed, we recommend the adhesive be applied in a triangular bead (see illustration above). Once opened, packs should be used within a relatively short period of time. 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. Tooling and finishing must be carried out within the tack-free time of the adhesive. We recommend the use of Sika® Tooling Agent N. Other finishing agents or lubricants must be tested for suitability and compatibility.
<b>Removal</b>	Uncured Sikaflex®-292i can be removed from tools and equipment with Sika® Remover-208 or other suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika® Hand Cleaner towels or a suitable industrial hand cleanser and water. Do not use solvents!
<b>Over-Painting</b>	Sikaflex®-292i may 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 fully cure 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®-292i and two-part paint systems are preferred.
<b>Further Information</b>	Copy of the following publications are available upon request: Material Safety Data Sheet; Sika Marine Application Guide.
<b>Packaging</b>	300 ml Cartridges; and 600 ml Sausages
<b>Value Bases</b>	All technical data stated in this Product Data Sheet are laboratory test-based. Current measured values may vary due to factors beyond our influence.
<b>Health and Safety Information</b>	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 for the appropriate type of substance. All Product Data Sheets and Material Safety Data Sheets are available on our website at: <a href="http://www.sika.ca">www.sika.ca</a> or via your Technical Sales Representative.



Curing speed for Sikaflex®-292i

#### Recommended Bead Configuration



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 under [www.sika.ca](http://www.sika.ca).

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