

PRODUCT DATA SHEET

Sikaflex®-292i

Multipurpose adhesive for marine applications

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	1-component polyurethane
Color (CQP001-1)	White
Cure mechanism	Moisture-curing
Density (uncured)	1.3 kg/l (10.8 lb/gal)
Non-sag properties (CQP061-1)	Very good
Application temperature	10 – 40 °C (50 – 104 °F)
Skin time (CQP019-1)	40 minutes ^A
Open time (CQP526-1)	30 minutes ^A
Curing speed (CQP049-1)	(see diagram 1)
Shrinkage (CQP014-1)	2 %
Shore A hardness (CQP023-1 / ISO 48-4)	40
Tensile strength (CQP036-1 / ISO 527)	3 MPa (430 psi)
Elongation at break (CQP036-1 / ISO 527)	400 %
Tear propagation resistance (CQP045-1 / ISO 34)	8 N/mm (45 pli)
Tensile lap-shear strength (CQP046-1 / ISO 4587)	2 MPa (290 psi)
Service temperature (CQP509-1 / CQP513-1)	-50 – 90 °C (-58 – 194 °F)
	4 hours 120 °C (248 °F)
	1 hour 140 °C (284 °F)
Shelf life (CQP016-1)	12 months ^B

CQP = Corporate Quality Procedure

^A) 23 °C (73 °F) / 50 % r. h.^B) storage below 25 °C (77 °F)
DESCRIPTION

Sikaflex®-292i is a non-sag 1-component polyurethane adhesive of thixotropic, paste-like consistency which cures on exposure to atmospheric moisture. It exhibits excellent adhesive properties and a good mechanical strength. Sikaflex®-292i meets the low spread of flame requirements set out by the International Maritime Organisation (IMO).

PRODUCT BENEFITS

- Good gap-filling properties
- Can be painted
- Bonds well to a wide variety of substrates
- Wheelmark approved
- Solvent free and very low VOC

AREAS OF APPLICATION

Sikaflex®-292i is suitable for structural joints in marine constructions which will be subjected to high dynamic stresses. It is suitable to bond metals, particularly aluminium (including anodized finishes), metal primers and paint coatings (2-component systems), or ceramic materials, plastics such as GRP (unsaturated polyester resin), ABS, etc.

Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-292i on materials prone to stress cracking.

This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

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Version 03.01 (04 - 2022), en_US
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CURE MECHANISM

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 somewhat slower (see diagram 1).

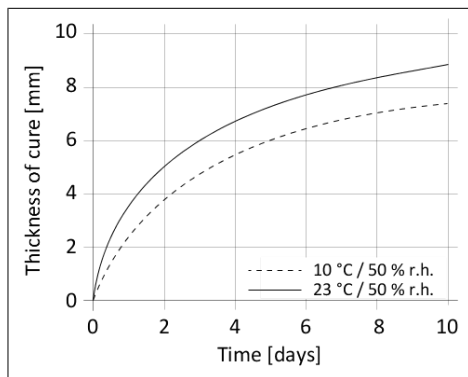


Diagram 1: Curing speed for Sikaflex®-292i

CHEMICAL RESISTANCE

Sikaflex®-292i is generally resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, glycolic alcohol, concentrated mineral acids and caustic solutions or solvents.

METHOD OF APPLICATION

Surface Preparation

Surfaces must be clean, dry and free from grease, oil and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. Suggestions for surface preparation may be found on the current edition of the appropriate Sika® Pre-treatment Chart.

Consider that these suggestions are based on experience and have in any case to be verified by tests on original substrates.

Application

Sikaflex®-292i can be processed at temperatures (climate and product) between 10 °C and 40 °C (50 °F and 104 °F) but changes in reactivity and application properties have to be considered. The optimum temperature for substrate and sealant is between 15 °C and 25 °C (59 °F and 77 °F).

Consider that the viscosity will increase at low temperature. For easy application, condition the adhesive at ambient temperature prior to use.

To ensure a uniform thickness of the bondline it is recommended to apply the adhesive in form of a triangular bead (see figure 1).

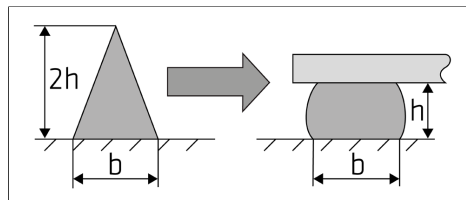


Figure 1: Recommended bead configuration.

Sikaflex®-292i can be processed with manual, pneumatic or electric driven piston guns. The open time is significantly shorter in hot and humid climate. The parts must always be installed within the open time. Never join bonding parts if the adhesive has built a skin.

Tooling and finishing

Tooling and finishing must be carried out within the skin time of the sealant. It is recommended using Sika® Slick. Other finishing agents must be tested for suitability and compatibility prior to use.

Removal

Uncured Sikaflex®-292i can 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 have to be washed immediately using a suitable industrial hand cleaner and water.

Do not use solvents on skin.

FURTHER INFORMATION

Copies of the following publications are available on request:

- Safety Data Sheets
- Sika Pre-treatment Chart
For 1-component Polyurethanes
- General Guidelines
Bonding and sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Cartridge	300 ml
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BASIS OF PRODUCT DATA

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

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by contacting SIKA's Technical Service Department via email at tsmh@us.sika.com. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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