BUILDING TRUST

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, black
Cure mechanism		Moisture-curing
Density (uncured)	depending on color	1.3 kg/l
Non-sag properties (CQP061-1)		Very good
Application temperature		10 – 40 °C
Skin time (CQP019-1)		30 minutes [A]
Open time (CQP526-1)		25 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
Elongation at break (CQP036-1 / ISO 37)		400 %
Tear propagation resistance (CQP045-1 / ISO 34)		8 N/mm
Tensile lap-shear strength (CQP046-1 / ISO 4587)		2 MPa
Service Temperature CQP509-1 / CQP513-1)		-50 – 90 °C
	4 hours	120 °C
	1 hour	140 °C
Shelf life		12 months [B]

CQP = Corporate Quality Procedure

[B] 23 °C / 50 % r. h.

[C] storage below 25 °C

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.

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).

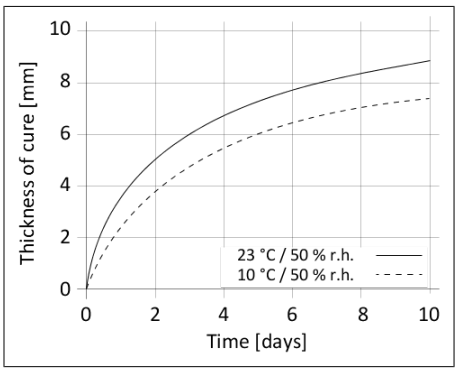

Diagram 1: Curing speed for Sikaflex®-292i

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 between 10 °C and 40 °C (climate and product) 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.
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 recommend to apply the adhesive in form of a triangular bead (see figure 1).

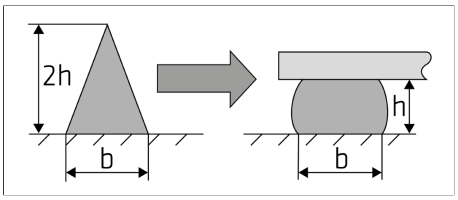

Figure 1: Recommended bead configuration

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® Tooling Agent N. Other finishing agents must be tested for suitability and compatibility prior the 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 Sika® Cleaner-350H cleaning towels or 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 Marine Applications
- General Guidelines
  Bonding and sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Cartridge	300 ml
Unipack	600 ml

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.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and enduse 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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