BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-291 Tube

Multifunctional adhesive sealant for marine applications

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		1-component polyurethane
Colour (CQP001-1)		Black, white
Cure mechanism		Moisture-curing
Density (uncured)	depending on colour	1.23 kg/l
Non-sag properties		Good
Application temperature	ambient	5 – 40 °C
Skin time (CQP019-1)		45 minutes [A]
Curing speed (CQP049-1)		see diagram 1
Shrinkage (CQP014-1)		15 %
Shore A hardness (CQP023-1 / ISO 48-4)		35
Tensile strength (CQP036-1 / ISO 527)		1.8 MPa
Elongation at break (CQP036-1 / ISO 527)		700 %
Tear propagation resistance (CQP045-1 / ISO 34)		7.5 N/mm
Tensile lap-shear strength (CQP046-1 / ISO 4587)		1 MPa
Service temperature (CQP513-1)		-40 – 90 °C
Shelf life		12 months [B]

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] storage below 25 °C

DESCRIPTION

Sikaflex®-291 Tube is a non-sag 1-component polyurethane sealant specifically developed for the marine market. It is suitable for making elastic, vibration resistant joint seals, and can also be used for a variety of interior and exterior sealing applications.

PRODUCT BENEFITS

- Bonds well to a wide variety of substrates
- Good ageing and weathering resistance
- Can be overpainted
- Elastic
- Low odour
- Non-corrosive
- Can be sanded
- Electrically non-conductive

AREAS OF APPLICATION

Sikaflex®-291 Tube bonds well to the materials commonly used in marine construction like wood, metals, metal primers and paint coatings (2-component systems), ceramic materials and plastics (GRP, etc.). Sikaflex®-291 Tube must not be used to seal plastics that are prone to stress cracking (e.g. Perspex, polycarbonate, etc.). Once cured, Sikaflex®-291 Tube can easily be sanded down as required.

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

CURE MECHANISM

Sikaflex®-291 Tube 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).

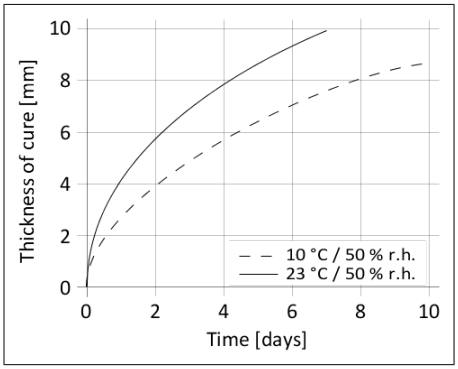

Diagram 1: Curing speed of Sikaflex®-291 Tube

CHEMICAL RESISTANCE

Sikaflex®-291 Tube is resistant to fresh water, seawater, limewater, sewage effluent, diluted 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, oil and dust. The adhesion of the sealant can be improved by wiping the joint with Sika® Aktivator-205 (cleaning and activating agent) and applying the appropriate Sika® Primer.

Advice on specific applications is available from the Technical Service Department of Sika Industry.

Application

Pierce the membrane, cut off the tip of the nozzle to suit joint width and squeeze the tube to extrude the sealant into the joint, taking care to avoid air entrapment. Once opened, packs should be used up within a relatively short time.

Do not apply at temperatures below 5 °C or above 40 °C. The optimum temperature for substrate and sealant is between 15 °C and 25 °C.

Tooling and finishing

Tooling and finishing must be carried out within the skin time of the sealant. It is recommend to use Sika® Tooling Agent N.

Other finishing agents or lubricants must be tested for suitability / compatibility.

Removal

Uncured Sikaflex®-291 Tube 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 should be washed immediately using Sika® Cleaner-350H or a suitable industrial hand cleaner and water.

Do not use solvents!

Overpainting

Sikaflex®-291 Tube can be overpainted when tack-free.

The paint must be tested for compatibility by carrying out preliminary trials. Sikaflex®-291 Tube should not be exposed to baking temperatures until it has attained full cure. It should be understood that the hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film.

FURTHER INFORMATION

Copies of the following publications are available on request:

- Safety Data Sheet
- Sika Marine Pre-treatment Chart
- Sika Marine Application Guide

PACKAGING INFORMATION

Tube	150 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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