

PRODUCT DATA SHEET

Sikaflex®-291 LOT

Long open time marine sealant

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		1-component polyurethane
Color (CQP001-1)		White, black, mahogany
Cure mechanism		Moisture-curing
Density (uncured)	depending on color	1.46 kg/l (12.2 lb/gal)
Non-sag properties		Good
Application temperature	ambient, product	5 – 40 °C (41 – 104 °F)
Skin time (CQP019-1)		4 hours ^A
Curing speed (CQP049-1)		(see diagram 1)
Shore A hardness (CQP023-1 / ISO 48-4)		45
Tensile strength (ASTM D412)		1.3 MPa (190 psi)
Elongation at break (ASTM D412)		550 %
Service temperature (CQP513-1)		-40 – 90 °C (-40 – 194 °F)
Shelf life		12 months ^B

CQP = Corporate Quality Procedure

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

Sikaflex®-291 LOT is a non-sag 1-component polyurethane sealant specifically developed for the marine market, which cures on exposure to atmospheric moisture. It is designed for applications that require additional working time.

PRODUCT BENEFITS

- Use above and below water line
- Bonds well to a wide variety of substrates
- Elastic
- Non-corrosive
- Can be overpainted and sanded
- NSF registered, Proprietary Substances and Nonfood Compounds (black and white)

AREAS OF APPLICATION

Sikaflex®-291 LOT is a multipurpose sealant for the use in marine applications where a long working time is necessary such as for bedding-in of teak plank decking laid on top of the sub deck surface. It is suitable to make elastic, vibration-resistant joint seals, and can also be used for a variety of interior sealing applications. Sikaflex®-291 LOT bonds well to the materials commonly used in marine construction like wood, metals, metal primers and paint coatings (2-C systems), and fiberglass.

Sikaflex®-291 LOT must not be used to seal plastics that are prone to stress cracking (e.g. Plexiglass, Polycarbonate, etc.).

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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Sikaflex®-291 LOT

Version 03.01 (04 - 2023), en_US

012001202914001200



Nonfood Compounds
Program Listed (R2)
Registration #122440 & 122727

CURE MECHANISM

Sikaflex®-291 LOT 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).

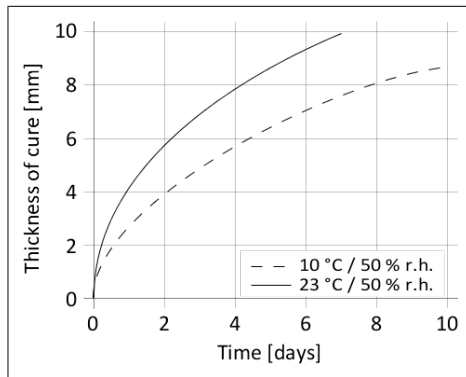


Diagram 1: Curing speed Sikaflex®-291 LOT

CHEMICAL RESISTANCE

Sikaflex®-291 LOT 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, dust and contaminants.

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®-291 LOT can be processed between temperatures (climate and product) of 5 °C and 40 °C (41 °F and 104 °F) but changes in reactivity and application properties have to be considered. The optimum temperature for substrate and process material is between 15 °C and 25 °C (59 °F and 77 °F). Sikaflex®-291 LOT can be processed with manual, pneumatic or electric driven piston guns.

Tooling and finishing

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

Removal

Uncured Sikaflex®-291 LOT may 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.

Overpainting

Sikaflex®-291 LOT can be painted after formation of a skin. If the paint requires a baking process, best performance is achieved by allowing the sealant to fully cure first. 1C-PUR and 2C-acrylic based paints are usually suitable. All paints have to be tested by carrying preliminary trials under manufacturing conditions.

The elasticity of paints is usually lower than that of sealants. This could lead to cracking of the paint in the joint area.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets
- Sika Pre-treatment Chart
For 1-component Polyurethane
- General Guideline
Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Cartridge	300 ml
Unipack	400 ml
Tube	3 oz

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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Sika Corporation

30800 Stephenson Highway
Madison Heights, MI 48071
U.S.A.
Telephone: +1 248-577-0020
Email: tsmh@us.sika.com
www.sikausa.com

