Sikaflex®-295 UV

Direct glazing adhesive for plastic glass in marine applications

Industry

Technical Product Data

Chemical base		1-C polyurethane
Color (CQP[1] 001-1)		Black, white
Cure mechanism		Humidity-curing
Density (uncured) (CQP 006-4)		1.3 kg/l approx.
Non-sag properties		Good
Application temperature		+10°C to +35°C
Tack free time[2] (CQP 019-1)		60 min. approx.
Curing speed (CQP 049-1)		(see diagram)
Shrinkage (CQP 014-1)		1% approx.
Shore A-hardness (CQP 023-1 / ISO 868)		35 approx.
Tensile strength (CQP 020-3 / ISO 8339)		1.1 N/mm^2 approx.
Elongation at break (CQP 020-4 / ISO 8339)		500% approx.
Tear propagation resistance (CQP 045-1 / ISO 34)		5 N/mm approx.
Glass transition temperature (CQP 509-1 / ISO 4663)		-45°C approx.
Movement accommodation factor		12,5%
Service temperature (CQP 513-1) Short term	permanent 4 hours 1 hour	-40°C to +90°C 120°C 150°C
Shelf life (storage below 25°C) (CQP 016-1)		12 months

1) CQP = Corporate Quality Procedure 2) At 23°C and 50% relative humidity

Description

Sikaflex®-295 UV is a 1-c polyurethane adhesive of paste-like consistency that cures on exposure to atmospheric moisture to form a durable elastomer.
Sikaflex®-295 UV meets the requirements set out by the International Maritime Organization (IMO).
Sikaflex®-295 UV is manufactured in accordance with the ISO 9001 / 14001 quality assurance system and with the responsible care program.

Product Benefits

- 1-C formulation
- Fast cure time
- Short cut-off string
- Approved for the OEM market
- Resistant to ageing and weathering
- Suitable for organic glasses

Areas of Application

Sikaflex®-295 UV has been specially developed for the marine industry, where it is used to bond and seal plastic glazing materials in boats and ships. Because of its excellent weatherability this product can also be used to seal joints in areas of severe exposure.
Suitable substrates are aluminum (bright or anodized), GRP (polyester resin), stainless steel, timber, 2-C coatings and plastic glazing materials (PC, PMMA).
Seek advice from our Technical Department if Sikaflex®-295 UV is used on thermoformed plastics.
This product is suitable for experienced professional users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Cure Mechanism

Sikaflex®-295 UV cures by reaction with atmospheric moisture. At low temperatures the water content of the air is lower and the curing reaction proceeds more slowly (see diagram).

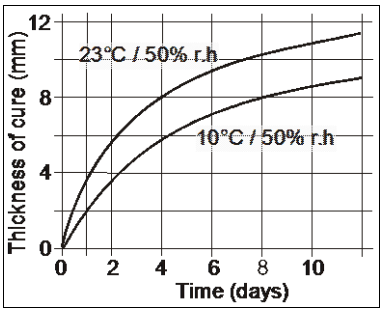


Diagram 1: Curing speed Sikaflex®-295 UV

Chemical Resistance

Sikaflex®-295 UV is resistant to fresh water, seawater, aqueous, chlorine free cleaning solutions and sewage effluent as well as 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, caustic solutions or paint thinners.

The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of Application

Surface preparation

Surfaces to be bonded must be clean, dry and free from grease, oil dust and dirt. As a rule the faces must be prepared in accordance with the instructions given in the current Sika® Pre-Treatment Chart – For Marine Applications.

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

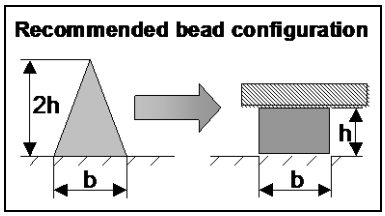
Application

Cut off the tip of the nozzle to suit the joint and apply the adhesive with a suitable hand-operated or compressed-air gun.

Once opened, Sikaflex®-295 UV has to be used within a relatively short time.

To ensure a uniform thickness of adhesive bead, we recommend that the adhesive is applied in the form of a triangular bead (see illustration). Correct joint design is essential when bonding plastic glazing materials and the special properties of these substrates must be taken into account.

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.



Tooling and finishing

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/ compatibility.

Removal

Uncured Sikaflex®-295 UV 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 should be washed immediately using Sika® Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents!

Overpainting

Sikaflex®-295 UV can be overpainted after formation of a skin. In case the paint requires a bake process it may be necessary to wait for a full cure. 1C-PUR and 2C-acrylic based paints are usually suitable. Not suitable are oil based paints. All paints have to be tested by carrying preliminary trials under manufacturing conditions. The elasticity of paints is lower than of polyurethanes. This could lead to cracking of the paint film in the joint area.

Further Information

Copies of the following publications are available on request:

- Safety Data Sheets
- Sika Pre-Treatment Chart – For Marine Applications
- General guidelines for bonding and sealing with Sikaflex® products.
- Sika Marine Application Guide

Packaging Information

Cartridge	300 ml
Unipack	600 ml

Value Bases

All technical data stated in this Product Data Sheet 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.

Legal Notes

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 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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