BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-953 L30

Long open time, fast-curing, 2-component STP assembly adhesive / sealant

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Sikaflex®-953 L30 A	Sikaflex®-905 B
Chemical base		2-component silane terminated polymer (STP)	
Color (CQP001-1)		White	White
Density (uncured)		1.41 kg/l (11.8 lb/gal)	1.20 kg/l (10.0 lb/gal)
	mixed	1.39 kg/l (11.6 lb/gal)	
Mixing ratio	A:B by volume	10 : 1	
	A:B by weight	11.7 : 1	
Non-sag properties (CQP061-1)		Fair	
Application temperature	product, ambient	5 – 40 °C (41 – 104 °F)	
Skin time (CQP019-1)		40 minutes [A]	
Open time (CQP526-1)		30 minutes [A]	
Curing speed (CQP046-1)		(see table) [A]	
Shrinkage (CQP014-1)		2 %	
Shore A hardness (CQP023-1 / ISO 48-4)		50	
Tensile strength (CQP036-1 / ISO 527)		2.5 MPa (360 psi)	
Elongation at break (CQP036-1 / ISO 527)		450 %	
Tear propagation resistance (CQP045-1 / ISO 34)		15 N/mm (85 pli)	
Tensile lap-shear strength (CQP046-1 / ISO 4587)		1.5 MPa (220 psi)	
Thermal resistance (CQP 513-1)	1 hour	160 °C (320 °F)	
Service temperature (CQP513-1)		-45 – 90 °C (-49 – 194 °F)	
Shelf life (CQP016-1)		9 months [B]	

CQP = Corporate Quality Procedure

[A] 23 °C (73 °F) / 50 % r.h.

[B] storage between 5 and 25 °C (41 and 77 °F), comp. (B) is frost sensitive

DESCRIPTION

Sikaflex®-953 L30 is a 2-component Silane Terminated Polymer (STP) assembly adhesive which cures by chemical reaction of the two components. The L30 version is designed for bonding large components where a longer open time is required.

Owing to its good weathering resistance and gap-filling performance it can also be used for exterior sealing joints. It is as well suitable where pumping over a long distance is required.

PRODUCT BENEFITS

- Pumpable over long distances
- Minimal pre-treatment required for most common substrates
- Solvent- and isocyanate-free
- Good gap-filling capabilities
- Great weathering and aging resistance

AREAS OF APPLICATION

Sikaflex®-953 L30 is suitable for bonding large components exposed to dynamic stress and where the attainment of early strength is required. Common substrates are metals, particularly aluminum (including anodized), steel (including phosphated, chromated, galvanized), metal primers and paint coatings (2-part systems), ceramic materials and plastics.

Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-953 L30 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

The curing of Sikaflex®-953 L30 takes place by chemical reaction of the two components.

Time [h]	Strength [MPa]
2	0.2 (30 psi)
4	0.6 (85 psi)
6	0.8 (120 psi)

Table 1: Lap-shear strength (CQP 046-1) at 23 °C (73 °F) / 50 % r.h.

CHEMICAL RESISTANCE

Sikaflex®-953 L30 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.

All pre-treatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

Application

Sikaflex®-953 L30 can be processed by cartridge with a suitable dispensing system. The mixer type needs to be respected (see Packaging Information).

Sikaflex®-953 L30 can be applied between 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 the Product is between 15 °C and 25 °C (59 °F and 77 °F).

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

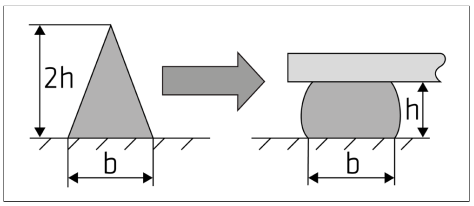

Figure 1: Recommended bead configuration

The open time is significantly shorter in hot and humid climate. The parts must always be joined within the open time. As a rule of thumb, a change of + 10 °C (+ 18 °F) reduces the open time by half.

Tooling and finishing

Tooling and finishing must be carried out within the open time of the adhesive. We recommend the use of Sika® Slick. Other finishing agents must be tested for suitability and compatibility.

Removal

Uncured Sikaflex®-953 L30 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 a suitable industrial hand cleaner and water.

Do not use solvents on skin.

Overpainting

Sikaflex®-953 L30 can be best painted within the skin formation time. If painting process takes place after the sealant has built a skin, adhesion could be improved by treating the joint surface with Sika® Aktivator-100 or Sika® Aktivator-205 prior to paint process. If the paint requires a baking process (> 80 °C / 176 °F), best performance is achieved by allowing the sealant to fully cure first.

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
- General Guidelines
  Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Sikaflex®-953 L30

Dual cartridge	490 ml
Mixer: MFHX 13-18T by medmix	

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

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