

Product Data Sheet

Version 02/2012 (10/2012)

Sikaflex®-953 L15 / L30 (formerly Sikaflex®-553 2K)

Two-Component Assembly Adhesive and Sealant

Technical Data

		Component A	Component B
Chemical Base		Two-Component Silane-Terminated Polymer (STP)	
Colour (CQP ¹ 001-1)		White	White
Density (CQP 006-4)		1.4 kg/L approx	1.2 kg/L approx
Density - mixed		1.4 kg/L approx	
Mixing Ratio		A:B by volume A:B by weight	
		10:1 11.7:1	
Non-sag Properties (CQP 061-1)		Fair	
Application Temperature		5°C to 40°C	
Skin Time ² (CQP 019-1) Component B		20 to 40 min approx	
Open Time ² (CQP 526-1) Component B		15 to 30 min approx	
Curing Speed (CQP 046-1)		See Table 1	
Shrinkage (CQP 014-1)		2%	
Shore A Hardness (CQP 023-1/ISO 868)		50	
Tensile Strength (CQP 036-1/ISO 37)		2.5 MPa	
Elongation at Break (CQP 036-1/ISO 37)		450%	
Tear Propagation Resistance (CQP 045-1/ISO 34)		10 N/mm	
Tensile Lap-Shear Strength (CQP 046-1/ISO 4587)		1.5 MPa	
Glass Transition Temperature (CQP 509-1/ISO 4663)		-50°C	
Thermal Resistance (CQP 513-1) 1 hour		160°C	
Service Temperature (CQP 525-1)		-45°C to 90°C	
Shelf Life (CQP 016-1) (Storage below 25°C) ³		9 months	
¹ CQP = Corporate Quality Procedure; ² 23°C and 50% Relative Humidity; ³ B Component is frost sensitive.			

Description

Sikaflex®-953 is a two component, silane-terminated polymer assembly adhesive which cures by chemical reaction of both components. Due to its good weathering resistance and gap-filling performance, it can also be used for sealing exposed joints. The adhesive is available in two versions with different open time: L15 and L30. It is well suited for pumping over long distances.

Product Benefits

- Pumpable over long distances;
- Minimal pre-treatment required for most common substrates;
- Good gap-filling characteristics;
- Resistant to weathering and ageing;
- Solvent- and isocyanate-free.



Areas of Application

Sikaflex®-953 is suitable for bonding large components exposed to dynamic stresses, and where the attainment of high early strength is required. Common substrates include metals, particularly aluminium (including anodized), steel (incl. phosphated, chromated, zinc-plated), metal primers and paint coatings (2-part systems), ceramic materials and plastics. This product is suitable for experienced professionals only. Testing with actual substrates and conditions is required to verify adhesion and material compatibility.

Cure Mechanism Sikaflex®-953 cures thanks to the chemical reaction of the two components.

Time (h)	Green Strength (MPa) approx	
	L15	L30
2	0.4	0.2
4	0.9	0.6
6	1.1	0.8

Table 1: Lap-Shear Strength (CQP 046-1) at 23°C/50 % R.H.

Chemical Resistance

Sikaflex®-953 offers: **good resistance** to fresh water, seawater and aqueous cleaning solutions; **temporary resistance** to fuels, mineral oils, vegetable and animal fats and oils; **no resistance** to organic acids, alcohol, concentrated mineral acids and caustic solutions or solvents. The above information is offered for general guidance only. Please consult Sika Canada Inc.'s Technical Services for advice on specific applications.

Surface Preparation

Surfaces should be clean, dry, and free of grease, oil and dust. Surface treatment depends on the specific nature of the substrates and need to be verified in any case by tests on original substrates. Often the adhesion can be improved by wiping the joint surfaces with Sika® Aktivator-205. Advice on specific applications is available from the Technical Department of Sika Industry.

Application

Sikaflex®-953 is dispensed from pails and drums by means of pneumatic or hydraulic metering systems or from cartridges with the help of a suitable hand gun. To achieve a proper mix ratio, an 18-element mixer is required. For a regular output, we recommend the Statomix® MS 12-18-G mixer. For advice on suitable pump systems, contact the System Engineering Department of Sika Industry. Do not apply at temperatures below 5 °C or above 40 °C. The optimum temperature for substrate and Sikaflex®-953 is between 15 and 25 °C.

Tooling and Finishing

Tooling and finishing must be carried out within the Open Time of the adhesive. We recommend the use of Sika® Tooling Agent N. Other finishing agents may be used after testing for compatibility.

Removal

Uncured Sikaflex®-953 may be removed from tools and equipment with Sika® Remover-208 or other suitable solvent. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika® Hand Cleaner towels or other suitable industrial hand cleaner and water. Do not use solvents!

Over-Painting

Sikaflex®-953 may be over-painted, providing compatibility is established via preliminary testing under manufacturing conditions. NOTE: The elasticity of paint is lower than that of polyurethane hybrids. This may lead to cracking of the paint film in the joint area.

Further Information

Copy of the following publication is available upon request: Safety Data Sheet.

Packaging

Component A: 23 L Pails and 195 L Drums; **Component B (L15 and L30):** 23 L Pails; **Dual Cartridges:** 490 ml

Value Bases

All technical data stated in this Product Data Sheet are laboratory test-based. Current measured values may vary due to factors beyond our influence.



Industry

Health and Safety Information For information and advice on the safe handling, storage and disposal of chemical products, users should refer to the current Material Safety Data Sheet containing physical, ecological, toxicological and other safety-related data for the appropriate type of substance. All Product Data Sheets and Material Safety Data Sheets are available on our website at: www.sika.ca.

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, within their shelf life. 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 recommendations, or from any other advice offered. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users should always refer to the most recent issue of the Product Data Sheet for the product concerned, copies of which will be supplied on request or can be accessed in the Internet under www.sika.ca.



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