BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-529 Evolution

Isocyanate free sprayable sealant for vehicle bodies

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		Silane Terminated Polymer
Color (CQP001-1)		Ochre
Cure mechanism		Moisture-curing
Density (uncured)		1.49 kg/l
Application temperature	ambient	5 – 40 °C
Skin time (CQP019-1)		15 minutes [A]
Curing speed (CQP049-1)		(see diagram)
Shrinkage (CQP014-1)		3 %
Shore A hardness (CQP023-1 / ISO 48-4)		45
Tensile strength (CQP036-1 / ISO 527)		2.3 MPa
Elongation at break (CQP036-1 / ISO 527)		150 %
Tear propagation resistance (CQP045-1 / ISO 34)		2.5 N/mm
Service temperature (CQP513-1)		-40 – 80 °C
	4 hours	120 °C
	1 hour	140 °C
Shelf life (CQP016-1)	unipack	12 months [B]

CQP = Corporate Quality Procedure

[A] 23 °C / 50 % r. h.

[B] stored below 25 °C

DESCRIPTION

Sikaflex®-529 Evolution is a sprayable 1-component Silane Terminated Polymer (STP) sealant that cures on exposure to atmospheric humidity.

It is used for seam sealing of factory provided original structures (surface areas and beads) for vehicle body assemblies. It adheres well to all the materials commonly used in body shops, e.g. metal primers and paint coatings, metals, painted plastics and plastics.

Where applied, it improves the resistance against stone chips and other mechanical attacks to the car body.

PRODUCT BENEFITS

- Easy to reproduce original structures
- Over paintable with various paint systems
- Very good working properties with little overspray
- Good adhesion to a wide variety of substrates
- Spray and bead application
- Low odor
- Good acoustic and damping properties
- Solvent and isocyanate-free
- Silicone and PVC-free

AREAS OF APPLICATION

Sikaflex®-529 Evolution is designed for use as a sprayable elastic sealant for seam sealing, lap joints and stone chip protection in collision repair and vehicle body construction.

Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-529 Evolution 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

Sikaflex®-529 Evolution 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).

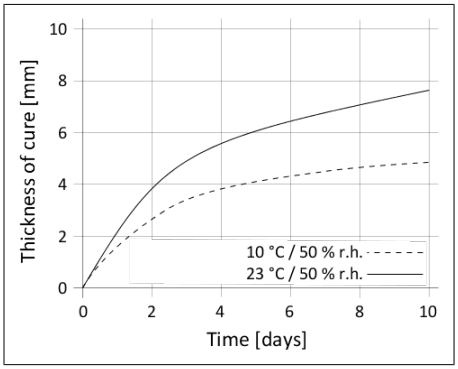

Diagram 1: Curing speed Sikaflex®-529 Evolution

CHEMICAL RESISTANCE

Sikaflex®-529 Evolution 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®-529 Evolution can be processed between 5 °C and 40 °C (climate and product) 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.
Sikaflex®-529 Evolution can be processed with manual, pneumatic or electric driven piston guns. For spray application use the Sika® Jetflow dispenser. Other dispensers need to be checked for suitability.

Tooling and finishing

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

Removal

Uncured Sikaflex®-529 Evolution 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 hand wipes such as Sika® Wonder Wipes or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

Overpainting

Sikaflex®-529 Evolution 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), 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
- Sika Pre-treatment Chart
  Silane Terminated Polymers

PACKAGING INFORMATION

Unipack	300 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.