

Product Data Sheet

Version 06/2012 (08/2012)

Sikaflex®-527 AT**High-Performance Sealant for Elastic Joints - For Use in Crash Body Repair Work****Technical Data**

Chemical Base		Silane-terminated Polymer
Colour (CQP ¹ 001-1)		White, Black, Light Grey
Cure Mechanism		Moisture-curing
Density (uncured) (CQP 006-4)	(colour dependent)	1.35 kg/L approx.
Non-Sag Properties		Good
Application Temperature	ambient	5°C to 40°C
Skin Time ² (CQP 019-1)		40 minutes approx
Open Time ² (CQP 526-1)		30 minutes approx
Curing Speed (CQP 049-1)		see Diagram 1
Volume Shrinkage (CQP 014-1)		3% approx
Shore A Hardness (CQP 023-1/ISO 868)		40 approx
Tensile Strength (CQP 036-1/ISO 37)		1.5 N/mm ² approx
Tear Propagation Resistance (CQP 045-1/ISO 34)		6 N/mm approx
Glass Transition Temperature (CQP 509-1/ISO 4663)		-50°C approx
Thermal Resistance (CQP 513-1)	4 hours 1 hour	120°C 160°C
Service Temperature		-40°C to 80°C
Shelf Life (CQP 016-1) (Stored below 25°C)	Cartridge	15 months
¹ CQP = Corporate Quality Procedure ² 23°C and 50% Relative Humidity		

Description

Sikaflex®-527 AT is a one-component PUR-Hybrid sealant based on the Sika Silane Terminated Polymer (STP) technology. It has been designed for use as a multi-purpose sealant for a variety of elastic joints for both the interior and exterior of vehicle bodies; it cures on exposure to atmospheric humidity to form a durable elastomer. Sikaflex®-527 AT is manufactured in accordance with ISO 9001/14001 quality assurance system.

Product Benefits

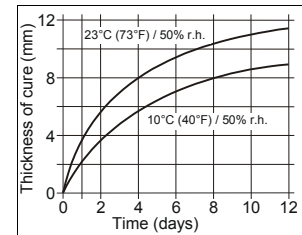
- Advanced hybrid technology;
- Good adhesion to a wide variety of substrates without primer;
- Fast-curing;
- Excellent working properties;
- Can be re-worked with a paint brush;
- Over-paintable with water-based paint systems, wet-on-wet and after skin formation;
- Ageing- and weather-resistant;
- Low odour; solvent- and isocyanate-free; silicone- and PVC-free;
- Non-corrosive.

Areas of Application

Sikaflex®-527 AT is suitable for sealing, seam-sealing, simple bonding as well as for vibration reduction and sound dampening measures in collision repair and vehicle body construction. Sikaflex®-527 AT adheres well to all the materials commonly used in body shops, e.g. metal primers and paint coatings, metals, painted plastics and plastics. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Cure Mechanism Sikaflex®-527 AT cures by reaction with atmospheric humidity. At low temperatures the water content of the air is generally lower and the curing reaction proceeds more slowly.

Diagram 1: Curing speed of Sikaflex®-527 AT



Chemical Resistance Sikaflex®-527 AT **is resistant** to fresh-water, sea-water, and aqueous cleaning solutions; **temporarily resistant** to fuels, mineral oils, vegetable and animal fats and oils; **not resistant** to organic acids, alcohol, concentrated mineral acids and caustic solutions or solvents. The above information is offered for general guidance only. Advice on specific applications will be given on request.

Surface Preparation Surfaces must be clean, dry and free from grease, oil and dust. Where appropriate, the adhesion of the adhesive can be improved by treating the substrate with Sika® Aktivator-205. Further suggestions for surface preparation can be found on the current edition of the Sika® Pre-Treatment Chart for Polyurethane Hybrids. While these suggestions are based on considerable experience, they must be verified by testing on the actual substrates to be used. Advice on specific applications is available from the Technical Services Department of Sika Industry.

Application Cut off the tip of the nozzle to suit joint width and apply the sealant into the joint with a suitable hand gun, taking care to avoid air entrapment. Do not apply at temperatures below 5°C or above 40°C. The optimum temperature for substrate and sealant is between 15°C and 25°C.

Tooling and Finishing Sikaflex®-527 AT can be tooled and finished with a paint brush or spatula or other suitable implement. Tooling and finishing must be carried out within the Open Time of the sealant. For a smooth finish, it is recommended that Sika® Tooling Agent N be used. Other finishing agents or lubricants must first be tested for suitability and compatibility.

Removal Uncured Sikaflex®-527 AT 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 a suitable industrial hand cleaner and water. Do not use solvents on skin!

Over-Painting Sikaflex®-527 AT can be over-painted with most common car paint systems (including water-based). Alkyd-based and acid-curing paints are unsuitable. Over-painting can be done wet-on-wet and up to 72 hours after application of Sikaflex®-527 AT. To achieve best material performance, allow sealant to cure prior to paint application and subsequent baking process. Adhesion on fully cured Sikaflex®-527 AT can be improved by treating the sealant with Sika® Aktivator-205 prior to painting. Note that the hardness and film thickness of the paint may impair the elasticity of the sealant and lead to cracking of the paint film.

Packaging 300 ml cartridges

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

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.

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. Product Data Sheets and Material Safety Data Sheets are available from your local representative.

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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