Industry

Product Data Sheet

Version 08/2011 (08/2012)

Sikaflex®-552 AT

High-Performance Assembly Adhesive - For Use in Crash Body Repair Work

Technical Data

Chemical Base		Silane-terminated Polymer
Colour (CQP[1] 001-1)		Black, White
Cure Mechanism		Moisture-curing
Density (uncured) (CQP 006-4)	(colour dependent)	1.45 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)		2% approx
Shore A Hardness (CQP 023-1/ISO 868)		50 approx
Tensile Strength (CQP 036-1/ISO 37)		3 N/mm² approx
Elongation at Break (CQP 036-1/ISO 37)		300% approx
Tear Propagation Resistance (CQP 045-1/ISO 34)		10 N/mm approx
Tensile Lap-Shear Strength (CQP 046-1/ISO4587)		2 N/mm² approx
Glass Transition Temperature (CQP 509-1/ISO 4663)		-50°C approx
Electrical Resistance (CQP 079-2/ASTM D 257-99)		3 . 10^{11} Ω cm approx.
Thermal Resistance (CQP 513-1)	4 hours 1 hour	140°C 150°C
Service Temperature		-40°C to 90°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®-552 AT is a high-performance, elastic, gap-filling PUR-Hybrid adhesive based on the Sika Silane-Terminated Polymer (STP) technology. Sikaflex®-552 AT can be used for vehicle-body trim; it cures on exposure to atmospheric humidity to form a durable elastomer. Sikaflex®-552 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;
- Impact- and shock-proof;
- Capable of withstanding high dynamic stresses;
- High green-strength;
- Fast-curing;
- Ageing- and weather-resistant;
- Low odour;
- Non-corrosive;
- Solvent- and isocyanate-free;
- Silicone- and PVC-free.

Areas of Application

Sikaflex®-552 AT is suitable for joints that are subjected to high dynamic stresses. Sikaflex®-552 AT adheres well to all the materials commonly used in body shops, e.g. metal primers and paint coatings, metals, painted plastics and plastics. Seek manufacturer's advice before using on plastics that are prone to stress cracking. 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.

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Cure Mechanism Sikaflex®-552 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.

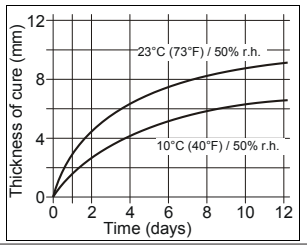

Diagram 1: Curing speed of Sikaflex®-552 AT

Chemical Resistance Sikaflex®-529 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. 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 adhesive into the joint with suitable hand-operated or compressed-air 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 adhesive is between 15°C and 25°C.

Tooling and Finishing Sikaflex®-552 AT can be tooled and finished within the Open Time of the adhesive. 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®-552 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®-552 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 3 hours after application of Sikaflex®-552 AT. To achieve best material performance, allow adhesive to cure prior to paint application and subsequent baking process. Adhesion to fully cured Sikaflex®-552 AT can be improved by treating the adhesive with Sika® Aktivator-205 prior to painting. Note that the hardness and film thickness of the paint may impair the elasticity of the adhesive 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.

Sika Canada Inc.
601 Delmar Avenue
Pointe-Claire, QC H9R 4A9
Tel.: 514-697-2610
Fax: 514-697-3910

1-800-689-SIKA
www.sika.ca

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