BUILDING TRUST

PRODUCT DATA SHEET

Sikaflex®-555

Isocyanate-free windshield and high-strength assembly adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical Base		Silane Terminated Polymer
Color (CQP001-1)		Black
Cure Mechanism		Moisture-curing
Density (Uncured)		1.2 kg/l
Non-Sag Properties		Good
Application Temperature		5 – 40 °C
Open Time (CQP526-1)		10 minutes [A]
Curing Speed (CQP049-1)		see diagram
Shrinkage (CQP014-1)		2 %
Shore A Hardness (CQP023-1 / ISO 48-4)		50
Tensile Strength (CQP036-1 / ISO 527)		5 MPa
Elongation at Break (CQP036-1 / ISO 527)		300 %
Tear Propagation Resistance (CQP045-1 / ISO 34)		10 N/mm
Tensile Lap-Shear Strength (CQP046-1 / ISO 4587)		3.5 MPa
Minimum Drive Away Time (Cars) according FMVSS 212 (CQP511-1)	with airbags	6 hours [A, B]
	without airbags	2 hours [A, B]
Service Temperature (CQP509-1 / CQP513-1)		-40 – 90 °C
Shelf Life (CQP016-1)	cartridge, unipack	9 months [C]
	pail, drum	9 months [C]

CQP = Corporate Quality Procedure [A] 23 °C / 50 % r. h. [B] details about MDAT contact Sika [C] stored below 25 °C

DESCRIPTION

Sikaflex®-555 is a cold-applied, isocyanate and solvent-free windshield and assembly adhesive. It meets the standards for original factory glazing and aftermarket applications.
Sikaflex®-555 is based on Sika's Silane Terminated Polymer (STP) technology that cures on exposure to atmospheric humidity.

PRODUCT BENEFITS

- Solvent- and Isocyanate-free
- Meets Automotive OEM specifications
- Black-primerless application
- Cold applied
- Easy to apply with any standard piston-type cartridge gun

AREAS OF APPLICATION

Sikaflex®-555 is suitable for vehicle glass bonding, industrial assembly applications and auto glass replacement. Suitable substrate materials are metals, particularly aluminum, metal primers, paint coatings, sheet steel, ceramic materials and plastics.
Seek manufacturer's advice and perform tests on original substrates before using Sikaflex®-555 on materials prone to stress cracking.
This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

Sikaflex®-555 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).

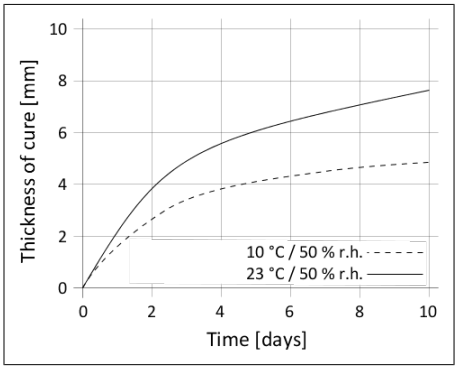

Diagram 1: Curing speed Sikaflex®-555

CHEMICAL RESISTANCE

Sikaflex®-555 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.
Windshields without ceramic coatings need proper UV protection.

Application

Sikaflex®-555 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 sealant is between 15 °C and 25 °C.

Consider that the viscosity will increase at low temperature. For easy application, condition the adhesive at ambient temperature prior to use.
To ensure a uniform thickness of the bondline it is recommended to apply the adhesive in form of a triangular bead (see figure 1).

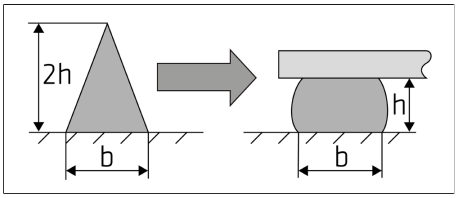

Figure 1: Recommended bead configuration

Sikaflex®-555 can be processed with manual, pneumatic or electric driven piston guns as well as pump equipment.
The open time is significantly shorter in hot and humid climate. The glass must always be installed within the open time. Never install a glass after the adhesive has built a skin.
For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry.

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 the use.

Removal

Uncured Sikaflex®-555 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® Cleaner-350H cleaning towels or a suitable industrial hand cleaner and water.
Do not use solvents on skin.

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
  For Silane Terminated Polymers (STP)
- General Guideline
  Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Cartridge	300 ml
Unipack	400 ml 600 ml
Pail	23 l
Drum	195 l

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.

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