

PRODUCT DATA SHEET

SikaFast®-3551

Long open time, toughened, high strength, structural adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaFast®-3551 (A)	SikaFast®-3551 (B)
Chemical base	Methacrylate	
Color (CQP001-1)	Off-White	Amber
	mixed	Light Yellow
Cure mechanism	Radical polymerization	
Density (uncured)	0.97 kg/l (8.1 lb/gal)	0.97 kg/l (8.1 lb/gal)
	mixed (calculated)	0.97 kg/l (8.1 lb/gal)
Mixing ratio	by volume	1 : 1
	by weight	1 : 1
Consistency	Thixotropic paste	
Application temperature	10 – 35 °C (50 – 95 °F)	
Open time (CQP526-2)	45 minutes ^A	
Peak exotherm time / temperature	200 minutes / 40 °C (104 °F) ^A	
Shore D hardness (CQP023-1 / ISO 48-4)	70	
Tensile strength (ASTM D638)	16 MPa (2300 psi)	
E-Modulus (ASTM D638)	elongation 0.1 – 1.0 %	780 MPa (110 ksi)
Tensile lap-shear strength (CQP046-6 / ISO 4587)	23 MPa (3350 psi)	
Service temperature (CQP513-1)	-40 – 80 °C (-40 – 176 °F)	
Shelf life	9 months ^B	

CQP = Corporate Quality Procedure

^A) 23 °C (73 °F) / 50 % r. h.^B) stored at temperature below 25 °C (77 °F) protect from direct sun light

DESCRIPTION

SikaFast®-3551 is a long open time, 1:1 ratio, 2-component adhesive based on methyl methacrylate (MMA) polymer technology. Uncured SikaFast®-3551 is a thixotropic, non-sagging paste which allows an easy and precise application.

PRODUCT BENEFITS

- Long working time for larger applications
- Non-sagging and thixotropic formulation
- Adhesion to a wide range of substrates without or with limited surface preparation
- Very good strength and impact / peel resistance

AREAS OF APPLICATION

SikaFast®-3551 is a long open time, flexibilized structural adhesive designed to substitute welding, riveting and other mechanical fastening. SikaFast®-3551 is suitable for high strength fastening of joints on different types of substrates including top coats, metals, and plastics with no or limited surface preparation. This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

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CURE MECHANISM

SikaFast®-3551 cures according to radical chain polymerization.

For an ideal curing process, it is required to homogeneously mix both components with the defined ratio. Open and cure time are influenced by mixing ratio deviations as well as temperature. The higher the temperature the shorter the open and cure time and vice versa. Despite the quick strength build-up, exposure to premature stresses must be avoided since this may result in a reduction of mechanical properties and loss of adhesion.

CHEMICAL RESISTANCE

In the view of potential chemical or thermal exposure, it is required to conduct project related testing.

METHOD OF APPLICATION

Surface Preparation

Surfaces must be clean, dry and free from grease, oil and dust. Remove all loose particles or residues by cleaning it thoroughly.

Due to the diversity of materials, preliminary tests with original substrates are necessary.

Application

SikaFast®-3551 is applied with a mixing ratio of 1:1 by volume from cartridges. If applied in large masses, heat is generated by the exothermic reaction. To avoid excessive temperature increase, bond thickness is limited to 5 mm (0.2 in) , but must measure at least 0.5 mm (0.02 in).

Optimum temperature for the bonding process is between 15 °C and 25 °C (59 °F and 77 °F). The approved temperature range for substrates and adhesive is between 10 °C and 35 °C (50 °F and 95 °F). The influence of the reactivity by temperature changes must be respected.

The parts must always be joined within the open time.

SikaFast®-3551 shall be processed with pneumatic or electric driven piston guns.

Removal

Uncured excess of SikaFast®-3551 can be removed easily before curing with a dry wipe, with Sika® Remover-208 or another suitable solvent. Once the adhesive is cured it can only be removed mechanically.

Hands and exposed skin have to be washed immediately using 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

PACKAGING INFORMATION

Dual cartridge	400 ml
Mixer: Sulzer MFQ 10-24T	

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.

ENVIRONMENTAL, HEALTH AND SAFETY

For further information and advice regarding transportation, handling, storage and disposal of chemical products, user should refer to the actual Safety Data Sheets containing physical, environmental, toxicological and other safety related data. User must read the current actual Safety Data Sheets before using any products. In case of an emergency, call CHEMTREC at 1-800-424-9300, International 703-527-3887.

LEGAL DISCLAIMER

Prior to each use of any product of Sika Corporation, its subsidiaries or affiliates ("SIKA"), the user must always read and follow the warnings and instructions on the product's most current product label, Product Data Sheet and Safety Data Sheet which are available at usa.sika.com or by contacting SIKA's Technical Service Department via email at tsmh@us.sika.com. Nothing contained in any SIKA literature or materials relieves the user of the obligation to read and follow the warnings and instructions for each SIKA product as set forth in the current product label, Product Data Sheet and Safety Data Sheet prior to use of the SIKA product.

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