

PRODUCT DATA SHEET

SikaFast®-3131

Fast curing, 2-component toughened structural adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaFast®-3131 (A)	SikaFast®-3081 N (B)
Chemical base	Methacrylate	
Color (CQP001-1)	Natural Straw	White
Cure mechanism	Radical polymerization	
Density	0.96 kg/l	1.30 kg/l
	mixed (calculated)	0.99 kg/l
Mixing ratio	by volume by weight	10 : 1 7.4 : 1
Consistency	Thixotropic paste	
Application temperature	10 – 35 °C	
Open time (CQP526-2)	7 minutes ^A	
Peak exotherm time / temperature	17 minutes / 90 °C ^A	
Shore D hardness (CQP023-1 / ISO 48-4)	65	
Tensile strength (ASTM D638)	9 MPa	
Elongation at break (ASTM D638)	50 %	
E-Modulus (ASTM D638)	elongation 0 – 5 %	100 MPa
Tensile lap-shear strength (CQP046-6 / ISO 4587)	10.5 MPa	
Service temperature (CQP513-1)	-30 – 80 °C	
Shelf life	drums / pails / cartridges	9 months ^B

CQP = Corporate Quality Procedure

^{A)} 23 °C / 50 % r. h.

^{B)} Stored at temperature below 22 °C protect from direct sun light

DESCRIPTION

SikaFast®-3131 is an acrylic based, fast curing, flexibilized structural, 2-component adhesive for applications requiring quick fixturing for higher throughput. It is designed to efficiently transfer high loads and evenly distribute stresses. SikaFast®-3131 provides very good adhesion on various substrates and is suitable to replace mechanical fixation.

PRODUCT BENEFITS

- Strength development within minutes after application
- Superior low-temperature flexibility compared to other structural adhesives
- Adhesion to a wide range of substrates without or with limited surface preparation
- High elongation and ductility
- Good strength and impact resistance

AREAS OF APPLICATION

SikaFast®-3131 is designed for fast bonding and can replace or complement mechanical fixations such as rivets, screws or welding. It is suitable for high strength fastening of concealed joints and exhibits very good adhesion on different types of substrates including aluminum, stainless or galvanized steel and fiber reinforced polymers.

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®-3131 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, e.g., 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, for example with an IPA wipe.

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

Application

SikaFast®-3131 is applied with a mixing ratio of 10:1 by volume through an 18-element static mixer. If applied in large masses, heat is generated by the exothermic reaction. To avoid excessive temperature increase, bond thickness is limited to 5 mm, but must measure at least 0.5 mm.

Optimum temperature for the bonding process is between 15 °C and 25 °C. The approved temperature range for substrates and adhesive is between 10 °C and 35 °C. The influence of the reactivity by temperature changes has to be respected.

The parts must always be joined within the open time. For support in evaluation of the appropriate application equipment contact the System Engineering department of Sika Industry.

Removal

Uncured excess of SikaFast®-3131 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 should be washed immediately using Sika® Cleaner-350H 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

PACKAGING INFORMATION

SikaFast®-3131 (A)

Pail	17 L
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SikaFast®-3081 N

Pail	17 L
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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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