

PRODUCT DATA SHEET

SikaForce®-812 L07 MR

Fast curing, moisture resistant adhesive and surface filler for blade repair applications

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	Component A SikaForce®-812 L07 MR	Component B SikaForce®-010
Chemical base	Polyols	Isocyanate derivatives
Color (CQP001-1)	White	Brown
	mixed Beige	
CURE MECHANISM	Polyaddition	
Density (uncured)	1.30 g/cm ³	1.24 g/cm ³
	mixed (calculated) 1.27 g/cm ³	
Mixing ratio	by volume 100 : 42	
	by weight 100 : 40	
Viscosity (CQP029-4)	25 °C, 40 mm PP, d = 0.8 mm, 500 s ⁻¹ 25 °C, 40 mm PP, d = 0.5 mm, 50 s ⁻¹	5.0 Pa·s 0.2 Pa·s
Application temperature	10 – 35 °C	
Shore D hardness (CQP023-1 / ISO 48-4)	80 ^{A, B}	
Tensile strength (CQP036-2 / ISO 527)	40 MPa ^{A, B, C}	
Elongation at break (CQP036-2 / ISO 527)	2 % ^{A, B, C}	
E-Modulus (CQP036-2 / ISO 527)	3 200 MPa ^{A, B, C}	
Tensile lap-shear strength (CQP046-9 / ISO 4587)	12 MPa ^{A, B, D}	
Glass transition temperature (CQP509-1 / ISO 6721-2)	60 °C ^B	
Shelf life	12 months	9 months

CQP = Corporate Quality Procedure

A) 23 °C / 50 % r.h.

C) tested at 2 mm/min

B) cured for 28 days at 23 °C

D) adhesive layer: 25 x 12.5 x 3 mm / on GFRP

DESCRIPTION

SikaForce®-812 L07 MR is a 2-component polyurethane based adhesive and surface filler that works best at temperature above 10 °C. The product is characterised by fast curing and optimised moisture resistance.

PRODUCT BENEFITS

- Good mixing, application and tooling properties
- Optimised moisture resistance
- Very good adhesion to GFRP
- High strength and stiffness

AREAS OF APPLICATION

SikaForce®-812 L07 MR is used for profile shaping and surface filling of damaged rotor blades as well as fast bonding applications in the wind turbine industry.

This product is suitable for experienced professional users only. Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

CURE MECHANISM

The curing of SikaForce®-812 L07 MR takes place by a chemical reaction of the two components. Higher temperatures speed up and lower temperatures slow down the curing process. The final glass transition temperature, as well as the tensile and shear strengths, may be increased with higher curing temperature.

CHEMICAL RESISTANCE

In case of 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, dust and contaminants. After the cleaning process, a physical or chemical pre-treatment might be required, depending on surface and type of material. The type of pre-treatment must be determined by tests.

Mixing process

For manual application ensure that the A-component is stirred thoroughly to avoid any sedimentation or separation. Take care not to stir too vigorously as this may introduce air into the product. Add the B-component in the specified ratio and stir thoroughly ensuring a consistent mixture is achieved without color variations.

Application

Apply with a trowel within working time. If mixed in larger amounts, the exothermic reaction can reduce the pot-life and open time significantly. For support on selecting and setting up a suitable pump system, contact the System Engineering department of Sika Industry.

Removal

Uncured SikaForce®-812 L07 MR may be removed from tools and equipment with Sika® Remover-208. 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 or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

STORAGE CONDITIONS

SikaForce®-812 L07 MR has to be kept between 10 °C and 30 °C in a dry place. Do not expose it to direct sunlight or frost.

After opening of the packaging, the content has to be protected against humidity.

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

SikaForce®-812 L07 MR (A)

Can	5 kg
Pail	20 kg
Drum	250 kg

SikaForce®-010 (B)

Drum	250 kg
Container	1 200 kg

SikaForce®-812 L07 MR (A + B)

MixCan	1 kg
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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.

PRODUCT DATA SHEET

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