

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 (10.8 lb/gal)	1.24 g/cm ³ (10.3 lb/gal)
	mixed (calculated)	1.27 g/cm ³ (10.6 lb/gal)
Mixing ratio	by volume 100 : 42	
	by weight 100 : 40	
Viscosity (CQP029-4)	25 °C (77 °F), 40 mm PP, d = 0.8 mm, 500 s ⁻¹ 25 °C (77 °F), 40 mm PP, d = 0.5 mm, 50 s ⁻¹	5.0 Pa·s 0.2 Pa·s
Application temperature	10 – 35 °C (50 – 95 °F)	
Shore D hardness (CQP023-1 / ISO 48-4)	80 ^{A, B}	
Tensile strength (CQP036-2 / ISO 527)	40 MPa (5 800 psi) ^{A, B, C}	
Elongation at break (CQP036-2 / ISO 527)	2 % ^{A, B, C}	
E-Modulus (CQP036-2 / ISO 527)	3 200 MPa (460 ksi) ^{A, B, C}	
Tensile lap-shear strength (CQP046-9 / ISO 4587)	12 MPa (1750 psi) ^{A, B, D}	
Glass transition temperature (CQP509-1 / ISO 6721)	60 °C (140 °F) ^B	
Shelf life	12 months	9 months

CQP = Corporate Quality Procedure

A) 23 °C (73 °F) / 50 % r.h.

C) tested at 2 mm/min

B) cured for 28 days at 23 °C (73 °F)

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 (50 °F). 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.

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Version 04.01 (03 - 2023), en_US

012104588120001000

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 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 (50 °F) and 30 °C (86 °F) 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)

Drum	250 kg
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SikaForce®-010 (B)

Drum	250 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.

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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