

PRODUCT DATA SHEET

SikaForce®-818 L07

(formerly SikaForce®-7818 L7)

High performance non-sagging structural adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	Component A SikaForce®-818 L07	Component B SikaForce®-050
Chemical base	Polyols	Isocyanate derivatives
Color (CQP001-1)	White	Brown
	mixed Beige	
Cure mechanism	Polyaddition	
Density (uncured)	mixed (calculated)	1.25 g/cm ³ (10.4 lb/gal)
		1.22 g/cm ³ (10.2 lb/gal)
Mixing ratio	by volume 100 : 45	
Viscosity (CQP029-4)	25 mm PP, d = 1 mm, 10 s ⁻¹	80 Pa·s ^A
		15 Pa·s ^A
Application temperature	10 – 35 °C (50 – 95 °F)	
Shore D hardness (CQP023-1 / ISO 48-4)	75 ^{A, B}	
Tensile strength (CQP036-2 / ISO 527)	30 MPa (4 350 psi) ^{A, B, C}	
Elongation at break (CQP036-2 / ISO 527)	3 % ^{A, B, C}	
E-Modulus (CQP036-2 / ISO 527)	2 500 MPa (360 ksi) ^{A, B, C}	
Tensile lap-shear strength (CQP046-9 / ISO 4587)	20 MPa- (2 900 psi) ^{A, B, D}	
Glass transition temperature (CQP509-1 / ISO 6721)	55 °C (131 °F) ^B	
Shelf life	drum	12 months
	cartridges, pails	9 months

CQP = Corporate Quality Procedure

^C) tested at 2 mm/min

^A) 23 °C (73 °F) / 50 % r. h.

^D) adhesive layer: 25 x 12.5 x 3 mm

^B) cured for 28 days at 23 °C (73 °F)

DESCRIPTION

SikaForce®-818 L07 is a structural 2-component polyurethane adhesive, which cures at room temperature. It is designed for bonding composite components. The adhesive is characterized by fast curing and strength build-up. While uncured, it has very good non-sag and compressibility behavior.

PRODUCT BENEFITS

- Very good non-sag behaviour
- Short curing time
- High strength and modulus for structural bonding applications
- Low smell
- Does not contain solvents or PVC

AREAS OF APPLICATION

SikaForce®-818 L07 is used for various bonding applications in the wind turbine manufacturing process, e.g. the attachment of mounting parts, lightning protection etc.

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 03.01 (11 - 2022), en_US

012104588180001000

CURE MECHANISM

The curing of SikaForce®-818 L07 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.

Application

For the cartridge application use a suitable manual or a compressed air piston-type cartridge dispenser.

To ensure good mixing quality the defined static mixer is to be used.

Extrude adhesive without mixer to equalize the filling levels. Attach the mixer and dispose the first few cm of the bead before the application. SikaForce®-818 L07 can also be processed from pails with adequate 2-component equipment. For automated applications, contact the System Engineering Department of Sika Industry.

Removal

Uncured SikaForce®-818 L07 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®-818 L07 has to be kept between 10 °C and 30 °C (50 °F and 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. The lowest allowed temperature during transportation is -20 °C (-4 °F) for max. 7 days.

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®-818 L07 (A)

Pail	20 kg
Drum	240 kg

SikaForce®-050 (B)

Pail	25 kg
Drum	250 kg

SikaForce®-818 L07 (A+B)

Coaxial cartridge	195 ml
Mixer: MCH 10-24T by medmix	

Dual cartridge	400 ml
Mixer: MFH 10-24T by medmix	

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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