BUILDING TRUST

PRODUCT DATA SHEET

SikaForce®-818 L07

High performance non-sagging structural adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		SikaForce®-818 L07	SikaForce®-7050
Chemical base		Polyols	Isocyanate derivatives
Colour (CQP001-1)		White	Brown
	mixed	Beige	
Cure mechanism		Polyaddition	
Density (uncured)		1.25 g/cm³	1.22 g/cm³
	mixed (calculated)	1.24 g/cm³	
Mixing ratio	by volume	100 : 45 [A]	
Viscosity (CQP029-4)	25 mm PP, d = 1 mm, 10 s^{-1}	80 Pa·s [B]	15 Pa·s [B]
Consistency		Thixotropic paste	
Application temperature		10 – 35 °C	
Working time		3 min [B]	
Shore D hardness (CQP023-1 / ISO 48-4)		75	
Tensile strength (CQP036-2 / ISO 527)		20 MPa [B, C]	
Elongation at break (CQP036-2 / ISO 527)		2.5 % [B, C]	
E-Modulus (CQP036-2 / ISO 527)		1800 MPa [B, C]	
Tensile lap-shear strength (CQP046-9 / ISO 4587)		20 MPa [B, C, E]	
Glass transition temperature (CQP509-1 / ISO 6721-2)		45 °C [C]	
Shelf life	drum	12 months [F]	9 months [F]
	cartridges, cans and pails	9 months [F]	

CQP = Corporate Quality Procedure
[A] for cartridges the mixing ratio is 2 : 1 [B] 23 °C / 50 % r. h. [C] cured for 7 days at 23 °C
[D] tested at 2 mm/min [E] adhesive layer: 25 x 12.5 x 3 mm / on GFRP [F] storage between 10 and 30 °C

DESCRIPTION

SikaForce®-818 L07 is a structural two-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.

CURE MECHANISM
The curing of SikaForce®-818 L07 takes place by a chemical reaction of the two components. Higher temperatures speed up the curing process and lower slow it down. 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, 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 pretreatment might be required, depending on surface and type of material. The type of pretreatment must be determined by tests.

Application
For the cartridge application use a suitable manual or a compressed air piston-type cartridge gun. To ensure good mixing quality a Sulzer MixPac® MCH 10-24T 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 hand wipes such as Sika® Cleaner-350H or 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 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.
Minimum temperature during transporation is -20 °C for maximum 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+B)

Cartridge	195 ml
MixCan	(6 x) 1.45 kg

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.