

PRODUCT DATA SHEET

SikaForce®-820 L06

(formerly SikaForce®-7571)

Flexible plasticizer free assembly adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaForce®-820 L06 (A)	SikaForce®-820 (B)
Chemical base	Polyols, filled	Isocyanate, filled
Color (CQP001-1)	Black	White
	mixed	Black
Cure mechanism	Polyaddition	
Density (uncured)	1.23 kg/l	1.53 kg/l
Mixing ratio	by volume by weight	2 : 1 100 : 62
Viscosity (CQP029-9)	120 000 mPa·s	90 000 mPa·s
Application temperature	ambient adhesive	15 – 40 °C 25 – 35 °C
Pot life (CQP536-2)	measured until 500 Pa·s	6 minutes
Open Time (CQP526-3)		3 minutes ^A
Shore A hardness (CQP023-1 / ISO 48-4)		65
Tensile strength (CQP545-2 / ISO 527)		3.5 MPa
Elongation at break (CQP545-2 / ISO 527)		350 %
E-Modulus (CQP545-2 / ISO 527)	0.5 – 5 %	7 MPa
Glass transition temperature (CQP509-1 / ISO 6721)		-37 °C
Service temperature (CQP513-1)		-40 – 100 °C
	2 hours	120 °C
Shelf life	9 months ^C	9 months ^C

CQP = Corporate Quality Procedure

^{A)} 23 °C / 50 % r.h.^{B)} e-coated steel, bond line thickness 4 mm^{C)} stored below 25 °C
DESCRIPTION

SikaForce®-820 L06 is a flexible 2-component adhesive. SikaForce®-820 L06 is designed for semi-structural bonding of components in general Industry. It consists of a filled polyol based resin and an isocyanate based hardener.

The formulation does not contain plasticizer, which reduces the risk of Environmental Stress Cracking (ESC).

PRODUCT BENEFITS

- Plasticizer free, minimized risk for ESC
- Good adhesion to PC and PC/ABS grades
- Stable modulus across a wide temperature range
- Highly flexible
- Fast curing
- Low glass transition temperature

AREAS OF APPLICATION

SikaForce®-820 L06 is designed for bonding automotive exterior parts containing substrates sensitive to environmental stress cracking. Due to its flexible properties it can be considered for roof assemblies (e.g. PC to e-coated steel) or spoiler bonding (e.g. PC/PET).

Seek manufacturer's advice and perform tests on original substrates before using this product on materials prone to stress cracking. 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

The curing of SikaForce®-820 L06 takes place by chemical reaction of the two components. Higher temperatures (max. 100 °C) speed up and lower temperatures slow down the curing process. For typical strength build up data at ambient temperature (23 °C) see table below.

Time	Lap-Shear Strength
0.5 h	0.2 MPa
1 h	0.6 MPa
2 h	1.2 MPa
4 h	1.8 MPa

Table 1: Strength build up SikaForce®-820 L06 at 23 °C

Full cure and final adhesion performance is achieved after 7 days.

CHEMICAL RESISTANCE

SikaForce®-820 L06 is resistant to hydrolysis. The chemical resistance is influenced by several factors such as chemical composition, concentration, period of exposure and temperature. Therefore a project related testing in case of chemical or thermal exposure is required.

METHOD OF APPLICATION

Surface preparation

Surfaces must be clean, dry and free from grease, oil and dust.

SikaForce®-820 L06 can be used to bond different substrates like e-coated metals or polar plastics (e.g. PC, PC/ABS) without any surface treatment depending on the specific material grade. On certain substrate qualities (e.g. SMA or PBT-ASA) a chemical treatment is required. Type of pre-treatment must be determined by tests.

Application

To process SikaForce®-820 L06 adequate dosing units and mixers are required.

Static or dynamic mixing devices can be used. The selection of the mixing device requires process oriented trials.

If SikaForce®-820 L06 is processed with equipment the static mixer MIXPAC™ ME 10-24T from Sulzer has to be used. Other mixers must be tested and confirmed by carrying preliminary trials under manufacturing conditions. For cartridges the static mixer MIXPAC™ MFH 10-24T shall be used.

Adhesion as well as curing speed can be improved by heat.

For automated applications a suitable filter system has to be used.

For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry.

Removal

SikaForce®-820 L06 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent.

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!

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®-820 L06

Cartridge	400 ml
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SikaForce®-820 L06 (A)

Pail	20 kg
Drum	240 kg

SikaForce®-820 (B)

Pail	25 kg
Drum	298 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.