

PRODUCT DATA SHEET

SikaForce®-825 L04

Fast and flexible plasticizer free assembly adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	SikaForce®-825 L04 (A)	SikaForce®-825 (B)
Chemical base	Polyol, filled	Isocyanate, filled
Color (CQP001-1)	Black	Whitish
	mixed	Black
Cure mechanism	Polyaddition	
Density (uncured)	1.19 kg/l	1.28 kg/l
Mixing ratio	by volume 2 : 1	
	by weight 100 : 55	
Viscosity (CQP029-9)	100 000 mPa·s	80 000 mPa·s
	mixed	100 000 mPa·s
Application temperature	ambient	15 – 40 °C
	adhesive	20 – 30 °C
Pot life (CQP536-2)	measured until 500 Pa·s	4 minutes
Open Time (CQP526-3)		3 minutes ^A
Shore A hardness (CQP023-1 / ISO 48-4)		65
Tensile strength (CQP036-1 / ISO 527)		8 MPa
Elongation at break (CQP036-1 / ISO 527)		450 %
E-Modulus (CQP036-1 / ISO 527)	0.5 – 5 %	5 MPa
Tensile lap-shear strength (CQP046-9 / ISO 4587)		4 MPa ^B
Glass transition temperature (CQP509-1 / ISO 6721)		-30 °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, bondline thickness 2 mm^{C)} stored below 25 °C
DESCRIPTION

SikaForce®-825 L04 is a flexible 2-component adhesive. It consists of a filled polyol based resin and an isocyanate based hardener.

SikaForce®-825 is designed for semi-structural bonding of mixed components in the general industry.

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

PRODUCT BENEFITS

- Plasticizer free, minimized risk for ESC
- Highly flexible
- Fast curing
- Can be accelerated by heat
- Good gap filling behavior
- Stable modulus across a wide temperature range
- Low glass transition temperature

AREAS OF APPLICATION

SikaForce®-825 L04 is designed for bonding automotive exterior parts. Due to its flexible properties it can be considered for roof assemblies, hard tops and tailgates.

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.

PRODUCT DATA SHEET

SikaForce®-825 L04

Version 03.03 (05 - 2023), en_DEAUTO

012104588250001000

CURE MECHANISM

The curing of SikaForce®-825 L04 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
1 h	1.5 MPa
2 h	3.0 MPa
3 h	3.5 MPa
6 h	4.0 MPa

Table 1: Strength build up SikaForce®-825 L04 at 23 °C

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

CHEMICAL RESISTANCE

SikaForce®-825 L04 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®-825 L04 can be used to bond different substrates like e-coated metals without any surface treatment depending on the specific material grade. On non polar substrates (e.g. PP) an adequate physical pre-treatment has to take place. On certain substrate qualities (e.g. SMA or PBT-ASA) a chemical treatment is required.

Application

To process SikaForce®-825 L04 adequate dosing units and mixers are required. Static or dynamic mixing devices can be used.

If SikaForce®-825 L04 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®-825 L04 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®-825 L04

Cartridge	400 ml
-----------	--------

SikaForce®-825 L04 (A)

Drum	195 l
------	-------

SikaForce®-825 (B)

Drum	195 l
------	-------

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

SikaForce®-825 L04
Version 03.03 (05 - 2023),
en_DEAUTO
012104588250001000

Sika Automotive Deutschland GmbH

Flinschstrasse 10-16
60388 Frankfurt am Main
www.sikaautomotive.com

