BUILDING TRUST

PRODUCT DATA SHEET

SikaForce®-420 L20

Non sagging assembly adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Component A SikaForce®-420 L20	Component B SikaForce®-010
Chemical base		Polyols	Isocyanate derivatives
Color (CQP001-1)		White	Brown
	mixed	White	
Cure mechanism		Polyaddition	
Density (uncured)		1.62 g/cm³ (13.5 lb/gal)	1.23 g/cm³ (10.3 lb/gal)
	mixed (calculated)	1.54 g/cm³ (12.9 lb/gal)	
Solid content		100 %	100 %
Mixing ratio	by volume	100 : 25	
	by weight	100 : 19	
Viscosity (CQP029-4)	Rheometer, PP25, shear rate 10 s^{-1}, d=1 mm	85 000 mPa·s [A]	300 mPa·s [A]
	mixed	40 000 mPa·s [A]	
Application temperature		15 – 30 °C (59 – 86 °F)	
Pot-life (CQP536-3)		20 minutes [A]	
Open time (CQP526-3)		30 minutes [A]	
Press time (CQP590-4)	1 MPa (140 psi)	60 minutes [A]	
Shore D hardness (CQP023-1 / ISO 48-4)		77 [B]	
Tensile strength (CQP543-1 / ISO 527)		16 MPa (2300 psi) [B]	
Elongation at break (CQP543-1 / ISO 527)		15 % [B]	
Tensile lap-shear strength (CQP546-1 / ISO 4587)		11 MPa (1600 psi) [B]	
Shelf life		12 months	9 months

CQP = Corporate Quality Procedure

[A] 23 °C (73 °F) / 50 % r.h.

[B] 12 weeks at 23 °C (73 °F) / 50 % r.h.

DESCRIPTION

SikaForce®-420 L20 is a high viscous 2-component polyurethane adhesive for assembling sandwich panels and similar constructions of various materials.
SikaForce®-420 L20 is tested according to FTP Code system and approved according to the IMO Marine Equipment Directives.

PRODUCT BENEFITS

- Non sagging
- IMO approved
- Good gap filling properties
- Solvent free

AREAS OF APPLICATION

SikaForce®-420 L20 is used primarily for assembling of profiles and sandwich constructions of e.g. glass fiber reinforced plastic, wood, metal, ceramic materials and pre-treated plastic materials.
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®-420 L20 takes place by a chemical reaction of the two components. Higher temperatures speed up the curing process and lower slow it down.

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
Volume and positioning of the adhesive must be defined in a way, that the intended gap is sufficiently filled after joining the parts. The specific applied quantity and position must be determined by tests.
The procedure for manual application is as follows: Ensure that the A-component is stirred thoroughly to avoid any sediment or separation, taking 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 homogeneous mixture is achieved.
Apply before reaching half of the pot-life and join parts together within the open time. Consider that, if mixed in larger amounts, the exothermic reaction can reduce the pot-life and open time significantly.
For automated applications, contact the System Engineering Department of Sika Industry.

Pressing
An adequate bonding pressure is necessary to obtain a voidless contact between the substrates and the adhesive. The specific pressure is, however, dependent on the core material and must be determined by tests. The pressure must always be below the maximum compressive strength of the core. After starting the press process, do not release the pressure until the press time has elapsed.

Removal
Uncured SikaForce®-420 L20 may be removed from tools and equipment with SikaForce®-096 Cleaner. 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®-420 L20 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®-420 L20 (A)

Drum	300 kg

SikaForce®-010 (B)

Drum	250 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.

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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