BUILDING TRUST

PRODUCT DATA SHEET

SikaForce®-611 L40

2-component polyurethane adhesive for honeycomb sandwich panel bonding

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties		Component A SikaForce®-611 L40	Component B SikaForce®-010
Chemical base		Polyols	Isocyanate derivatives
Color (CQP001-1)		Beige	Brown
	mixed	Beige	
Cure mechanism		Polyaddition	
Density (uncured)		1.30 kg/l	1.20 kg/l
	mixed, calculated	1.28 kg/l	
Solid content		100 %	100 %
Mixing ratio	by volume	100 : 32	
	by weight	100 : 29	
Viscosity (CQP538-2)		7 000 mPa·s [A] (Brookfield, RVT 5/10)	250 mPa·s [A] (Brookfield, RVT 2/50)
Application temperature		15 – 30 °C	
Pot-life (CQP536-3)		40 minutes [A]	
Press time (CQP590-1)	at 23 °C	120 minutes	
	at 70 °C	6 minites	
Shore D hardness (CQP023-1 / ISO 868)		80	
Tensile strength (CQP545-2 / ISO 527)		16 MPa	
Elongation at break (CQP545-2 / ISO 527)		25 %	
Tensile lap-shear strength (CQP546-2 / ISO 4587)		12 MPa	
Shelf life		6 months	9 months

CQP = Corporate Quality Procedure

A) 23 °C / 50 % r. h.

DESCRIPTION

SikaForce®-611 L40 is the base part of a two-component polyurethane adhesive used with SikaForce®-010 hardener.

PRODUCT BENEFITS

- Short curing time
- Ageing-resistant
- Solvent-free

AREAS OF APPLICATION

SikaForce®-611 L40 is especially designed for honeycomb sandwich panel bonding of aluminium, UP-GRP, coil coated steel to paper, aluminium honeycomb core.

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®-611 L40 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.
During the curing process, carbon dioxide is released from the adhesive. If none of the substrates are porous, measures need to be taken to allow the carbon dioxide to escape.

Application
Typically a coat weight between 150 and 350 g/m² is applied, depending on the substrates to be bonded. The specific coat weight for a given substrate combination must be determined by tests.
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.
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 advice on selecting and setting up a suitable pump system, 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®-611 L40 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®-611 L40 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.

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®-611 L40

Pail	23 l

SikaForce®-010

Can	5 l
Pail	23 l
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.

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