

PRODUCT DATA SHEET

SikaForce®-105 CT9

1-component adhesive for panel bonding

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	Polyurethane
Color (CQP001-1)	Brown
Cure mechanism	Moisture curing
Density (uncured)	1.12 g/cm ³
Consistency	Liquid
Solid content	100 %
Viscosity (CQP029-4)	Rheometer, PP25, shear rate 10 s ⁻¹ , d=1 mm 9000 mPa·s ^A
Application temperature	15 – 30 °C
Open time (CQP591-1)	4 minutes ^A
Curing time (CQP591-1)	9 minutes ^A
Gross calorific potential (EN ISO 1716)	30.8 MJ/kg
Shelf life	6 months

CQP = Corporate Quality Procedure

^{A)} 23 °C / 50 % r.h.

DESCRIPTION

SikaForce®-105 CT9 is a foaming, moisture curing 1-component polyurethane adhesive for bonding sandwich panels and similar constructions of various materials.

PRODUCT BENEFITS

- Well suited for porous substrates
- Foaming, expands to fill gaps
- Good wetting properties
- Solvent free

AREAS OF APPLICATION

SikaForce®-105 CT9 is used primarily for bonding sandwich panels with skin materials of pre-treated or primed aluminum, steel, glass fiber reinforced plastic and core materials of plywood, wood, extruded / expanded polystyrene and mineral wool.

SikaForce®-105 CT9 is well suited for automatic applications.

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®-105 CT9 takes place by chemical reaction between the adhesive and moisture. 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 100 g/m² and 300 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.

SikaForce®-105 CT9 is a moisture curing adhesive. A water mist of approx. 10 % of the adhesive coat weight, sprayed either on the adhesive or the bond face, is required.

To prevent curing of the product in the short term, the dosage nozzles for 1-component polyurethane adhesive are typically submerged in a tray filled with SikaForce®-097 Nozzle Oil, when not in use.

For manual application, apply with trowel, spray water mist on the surface and press parts together before the end of the open time.

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®-105 CT9 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 hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

STORAGE CONDITIONS

SikaForce®-105 CT9 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

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 end use 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

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Sika Deutschland CH AG & Co KG

Industry
Stuttgarter Straße 139
72574 Bad Urach
Tel. +49 7125 940-7692
verkauf.industry@de.sika.com
www.sika.de

