

SikaForce®-7110 L55

One component tough adhesive for sandwich panel bonding

Technical Product Data

Chemical base		Polyurethane
Colour (CQP ¹ 001-1)		Brown
Cure mechanism		Moisture curing
Density (CQP 006-6)		1.4 kg/l approx.
Consistency		Liquid
Solid content		100%
Viscosity ² (CQP 538-2)	Brookfield - RVT 4/10	10 Pa·s approx. (increasing to max. 20 Pa·s after 3 months)
Application temperature		15 - 30°C (60 - 85°F)
Open time ² (CQP 591-1)		(see diagram 1)
Curing time ² (CQP 591-1)		(see diagram 1)
Press time ² (CQP 590-2)		(see diagram 2)
Shelf life (storage between 10 and 30°C)	1000 l container smaller packaging	3 months 5 months

¹⁾ CQP = Corporate Quality Procedure

²⁾ 23 °C (73 °F) / 50% r.h.

Description

SikaForce®-7110 L55 is a moisture curing one component polyurethane adhesive. In the process of curing, a light foaming occurs which has a levelling effect on uneven surfaces.

SikaForce®-7110 L55 meets the requirements set out by the International Maritime Organisation (IMO) and is manufactured in accordance with ISO 9001 / 14001 quality assurance systems.

Product Benefits

- Low content of isocyanate
- Long open time
- Approved according to IMO Res. A.653(16)

Areas of Application

SikaForce®-7110 L55 is primarily used for bonding of sandwich constructions with skin materials of e.g. steel, aluminium or wood and core materials of e.g. mineral wool, polystyrene, polyurethane or wood. This product is suitable for professional experienced users only. Tests with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

Industry



Cure Mechanism

The curing of SikaForce®-7110 L55 takes place by a chemical reaction between the adhesive and moisture. Higher temperatures speed up and lower temperatures slow down the curing process.

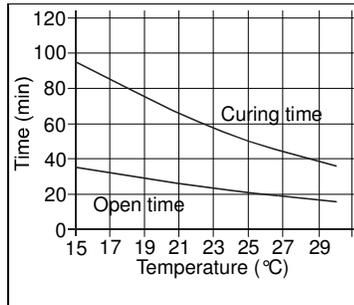


Diagram 1: Open time and curing time for SikaForce®-7110 L55

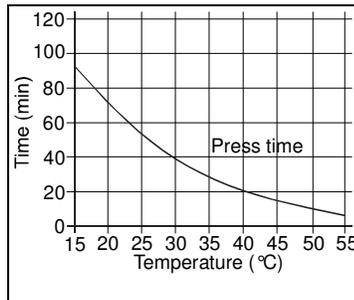


Diagram 2: Press time

Chemical Resistance

In case of expected chemical or thermal exposure, we recommend a project related testing. Please consult the Technical Service Department of Sika Industry.

Method of Application

Surface preparation

Usually it is necessary to prepare the substrates for bonding to ensure optimal adhesion and strength. After the cleaning process, a physical or chemical pretreatment may be required, based on the surface and type of material. During the curing process, carbon dioxide is released from the adhesive. If none of the substrates are porous, measures should be taken to allow the carbon dioxide to escape (e.g. cavities in the bonding surface).

Advice on specific applications is available from the Technical Service Department of Sika Industry.

Application

Coat weights between 150 and 350 g/m² are recommended depending on the substrates to be bonded. The specific coat weight for a given substrate combination should be determined by tests. SikaForce®-7110 L55 is a moisture curing adhesive and a water mist of approx. 10%, sprayed either on to the adhesive or the material itself, is strongly recommended. SikaForce®-7110 L55 is well suited for automatic applications.

For manual application, apply with trowel, spray water mist on the surface and press parts together before the end of the open time. For detailed information, contact the Technical Service Department of Sika Industry.

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

Pressing

An adequate bonding pressure to obtain good contact between the substrates is necessary. 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. The bonded parts should not be moved during the pressing stage.

Removal

Uncured SikaForce®-7110 L55 may be removed from tools and equipment with SikaForce®-7260 Cleaner. Once cured, the material can only be removed mechanically. Hands and exposed skin should be washed immediately using Sika® Hand clean towels or a suitable industrial hand cleaner and water. Do not use solvents!

Storage Conditions

SikaForce®-7110 L55 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 contents should be protected against humidity. Minimum temperature during transportation is 0°C for maximum 6 hours.

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- Reactivity curves in large format

Packaging Information

SikaForce®-7110 L55

Pail	25 kg
Drum	275 kg
Fluid bag	1300 kg

Value Bases

All technical data stated in this Product Data Sheet 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 Material Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

Legal Notes

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.



Sika South Africa (PTY) Ltd
9 Hocking Place
Westmead, 3608
South Africa

E-mail: headoffice@za.sika.com
Phone +27 31 792 6500
Telefax +27 31 700 1760
www.sika.co.za

