

PRODUCT DATA SHEET

SikaTherm®-290 LV RE

Low-viscosity, water-based lamination adhesive for textile and fabric substrates

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	Component A SikaTherm®-290 LV	Component B SikaTherm®-026
Chemical base	Polyurethane	Polyisocyanate
Color (CQP001-1)	White	Colorless (UV), blue
Cure mechanism	Polyaddition	
Density (uncured)	1.00 kg/l	1.20 kg/l
pH value (CQP004-1)	7.5	
Solid content	57 %	
Mixing ratio	by weight 100 : 5 by volume 100 : 4.2	
Viscosity (by Brookfield)	RVT, Sp. 2/20 rpm RVT, Sp. 2/10 rpm	1 700 mPa·s ^A 600 mPa·s ^A
Coat weight	80 – 120 g/m ²	
Application temperature	15 – 25 °C	
Pot-life	8 hours ^B	
Drying time (CQP565-1)	30 minutes ^B drying tunnel at 40 °C 10 minutes	
Activation temperature	60 °C	
Shelf life	6 months	12 months

CQP = Corporate Quality Procedure

^{A)} at 20 °C^{B)} 23 °C / 50 % r.h.
DESCRIPTION

SikaTherm®-290 LV RE is a multipurpose, 2-component, water-based polyurethane dispersion adhesive.

It is designed for lamination applications and can be applied by spray, roller or brush. It can be used for press lamination (two-side application).

PRODUCT BENEFITS

- Low emission
- High initial strength
- High resistance against hydrolysis
- Reduced odor
- Easy reactivation

AREAS OF APPLICATION

SikaTherm®-290 LV RE is suitable for permanent bonding of polar plastics as well as for wood, foam, textiles, painted and primed steel. Non polar plastics like PP and PE can be bonded after proper physical pre-treatment. SikaTherm®-290 LV RE is specially designed for the lamination of decorative materials of headliners where low emissions and viscosity are required.

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 SikaTherm®-290 LV RE starts after the evaporation of water.

After the evaporation process the chemical crosslinking with the hardener takes place.

At room temperature the full curing is completed after 72 hours.

Higher temperatures speed up and lower temperatures slow down the curing and drying process.

CHEMICAL RESISTANCE

SikaTherm®-290 LV RE is temporarily resistant to aqueous surfactant, weak alkaline/ acids solutions, fuels, solvents and mineral oils.

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.

Based on the substrates a physical or chemical pre-treatment might be required.

All pre-treatment steps must be confirmed by preliminary tests on original substrates.

Mixing process

Both components must be mixed homogeneously in the right mixing ratio.

SikaTherm®-290 LV RE is suitable for manual and automated mixing devices.

Care must be taken to avoid air inclusion.

Application

SikaTherm®-290 LV RE is typically applied by spray, roller or brush. The application parameters and the subsequent processing vary depending on the application and the process used (vacuum or press lamination, two- or one-sided application, flocking, etc.).

Consider, if processing SikaTherm®-290 LV RE by spray application, inhalation of substances must be prevented by suitable air extraction or other means.

The Product can be dried at ambient condition as well as in a drying tunnel. The drying time at 40 °C shall not exceed 10 minutes.

For the bonding process the Product needs a reactivation temperature of 60 °C and sufficient pressure on the whole bonding area.

In case of automated dosing applications a suitable filter system must be installed.

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

Removal

Uncured SikaTherm®-290 LV RE may be removed from tools and equipment with warm water.

Once cured, the material can only be removed mechanically.

Hands and exposed skin shall 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

SikaTherm®-290 LV is frost sensitive and has to be stored at temperatures between 5 °C and 25 °C in a dry place.

SikaTherm®-026 has to be stored at temperature below 30 °C in a dry place.

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 Sheet
- Application Manual SikaTherm®

PACKAGING INFORMATION

SikaTherm®-290 LV (A)

Container	1050 kg
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SikaTherm®-026 (B)

Can	1.25 l
Drum	170 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.

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.