

SikaMelt®-9676 OT

Sandwich panel PUR hot melt with long open time

Technical Product Data

Chemical base	Polyurethane reactive hot melt
Color	White – beige, opaque
Cure mechanism	Moisture-curing
Density (CQP 006-7)	1,2 kg/l approx.
Solid content	100%
Viscosity at 130°C (Brookfield Thermosel)	15.000 mPas approx.
Softening Temperature (ISO 5940 (ring & ball method))	75°C approx.
Application temperature	110 - 160°C
Open time (CQP 559-1)	6 min. approx.
Curing time (CQP 558-1)	22 h approx.
Green strength (CQP 557-1)	0,8 N/mm ² approx.
Shore D hardness (CQP 023-1 / ISO 868)	42 approx.
Tensile strength (CQP 036-3)	15 N/mm ² approx.
Elongation at break (CQP 036-3)	900% approx.
Temperature Resistance (CQP 513-2)	-40°C to +110°C
Shelf life (storage below 25°C)	cartridge other packaging
	4 months 6 months

¹⁾ CQP = Corporate Quality Procedure

Description

SikaMelt®-9676 OT is a reactive hot melt based on polyurethane for sandwich panel bonding.

SikaMelt®-9676 OT is manufactured in accordance with ISO 9001 / 14001 quality assurance system and the responsible care program.

Product Benefits

- High final strength and flexibility over a broad temperature range
- Long open time
- High green strength
- Excellent ageing and heat resistance
- Broad adhesion spectrum
- Exceptional roller stability

Areas of Application

SikaMelt®-9676 OT is mainly used for the manufacturing of insulated panels, decorative panels, doors and other sandwich elements. It has a broad adhesion spectrum and is suitable for permanent strong bonding of polar polymers like ABS, PC, SMC and PVC, wood and wood based materials, foams, textiles, aluminium as well as painted and primed steel. Non polar polymers like PP and PE can also be bonded after special pre-treatment. Area applications on substrate combinations like polymer and steel plates, which do not provide moisture permeability to the adhesive layer, are not possible with SikaMelt®-9676 OT.

This product is suitable for professional experienced users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.



Cure Mechanism

The formation of the SikaMelt®-9676 OT adhesive polymer is based on a cross-linking after reaction with moisture of the air (see diagram 1).

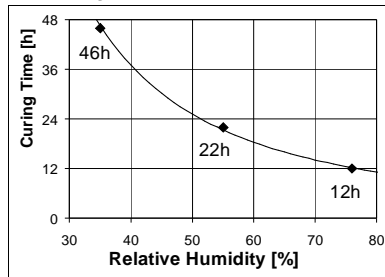


Diagram 1: Curing time for 500 µm adhesive film at 20°C

The curing is not only dependent on the applied film thickness, but also on the moisture content of the air, temperature, moisture content and permeability of the substrates.

Chemical Resistance

SikaMelt®-9676 OT is resistant to aqueous surfactant solutions, weak acids and caustic solutions. It is temporarily resistant to fuels, solvents and oils. As the chemical resistance depends on type and condition of the substrate, chemical concentration, exposure duration and temperature, a project adapted adhesive performance test is strongly recommended.

The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of Application

Surface preparation

Bonding area must be clean, dry and free from grease, oil and dust. The temperature of the substrates at the adhesive application should exceed 15°C. Adhesion can be improved by suitable substrate pre-treatment. Metals should be heated to 40°C prior to use.

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

Application

SikaMelt®-9676 OT is mainly applied by roller coaters, but can also be applied as film-, spot-, bond-line- or spray-application by appropriate melting equipment out of hobbocs or drums. Split width is 0,1 - 1 mm. For automated application a suitable filter system is required.

Standstill periods for several hours or over night have to be avoided especially at temperatures above 120°C. During longer periods of interruption the equipment temperature has to be lowered to 100°C. Clean the nozzles with a dry oil (available on request) in order to avoid blockage.

For advice on selecting and setting up a suitable pump and application systems please contact the System Engineering Department of Sika Industry.

Removal

SikaMelt®-9676 OT in uncured state may be removed from equipment with SikaMelt®-9900. For the easy cleaning of roller coaters we recommend to use SikaMelt®-9902 (see also manual "Cleaning of SikaMelt® reactive PUR hot melt application tools").

Once cured inside application equipment, the material can be swelled with SikaMelt®-9901. After swelling a mechanical cleaning is necessary. Uncured SikaMelt®-9676 OT may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Hands and exposed skin should be washed immediately using Sika® Handclean Towel or a suitable industrial hand cleaner and water. Do not use solvents!

Further Information

Copies of the following publications are available on request:

- Material Safety Data Sheets
- Manual "Cleaning of SikaMelt® reactive PUR hot melt application tools"

Packaging Information

Cartridge	330 g
Bag	2,5 kg
Hobbock	20 kg
Drum	195 l

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 should 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.

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