

SikaMelt®-9677**Multi-Purpose PUR Hot Melt for Sandwich Panel Bonding**

Typical Product Data

Chemical base	Polyurethane
Color	White – beige, opaque
Cure mechanism	Moisture-curing
Density (CQP ^A 006-7)	1.2 kg/l (10.0 lb/gal)
Viscosity at 130°C (Brookfield Thermosel)	12,500 mPa-s
Softening Temperature (CQP 538-5)	72°C (160°F)
Application temperature	120 - 140°C (250° - 285°F)
Short term max. 1 hr	150°C (300°F)
Open time (CQP 559-1)	Long
Curing time (CQP 558-1)	22 h
Green strength after 30 minutes (CQP 557-1)	0.3 N/mm ² (40 psi)
Shore D hardness (CQP 023-1 / ISO 868)	72
Tensile strength (CQP 036-3)	9 N/mm ² (1300 psi)
Shelf life (storage below 25°C in sealed containers)	9 months

^{A)}CQP = Corporate Quality Procedure

Description

SikaMelt®-9677 is a reactive polyurethane hot melt adhesive. It cures on exposure to atmospheric humidity and forms a durable elastomer. SikaMelt®-9677 is certified by the International Maritime Organization (IMO) according to the low flame spread characteristics.

Product Benefits

- Very long open time
- High green strength
- Broad adhesion range
- Excellent heat resistance after moisture curing
- Exceptional aging resistance
- Wheelmark approved

Area of Application

SikaMelt®-9677 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. It is used for interior trim lamination as well as for Sandwich Panel applications.

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.

Automotive



Prior to each use of any Sika product, the user must always read and follow the warnings and instructions on the product's most current Product Data Sheet, label and Safety Data Sheet which are available on request at tsmh@us.sika.com. Nothing contained in any Sika materials relieves the user of the obligation to read and follow the warnings and instructions for each Sika product as set forth in the current Product Data Sheet, label and Safety Data Sheet prior to product use.

Cure Mechanism

SikaMelt®-9677 cures by reaction with atmospheric moisture. At low temperatures, the water content of the air is typically lower and the curing reaction proceeds somewhat slower (see diagram 1). For area applications with moisture impermeable substrates, ensure that enough humidity is available to properly cure. In such cases, project related testing is mandatory and the adhesive layer usually does not exceed 100 µm (4 mils).

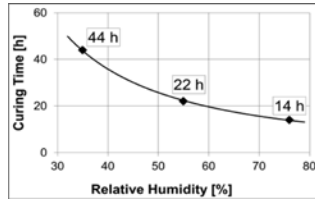


Diagram 1: Curing time of SikaMelt®-9677 for 500 µm film

Chemical Resistance

SikaMelt®-9677 is resistant to aqueous surfactant, weak alkaline / acids solutions and temporarily resistant to fuels, solvents and mineral oils. The chemical resistance is influenced by several factors such as chemical composition, concentration, period of exposure and temperature. Therefore, in cases of chemical or thermal exposure, project related testing is required. The above information is offered for general guidance only. Advice on specific applications will be given on request.

Method of Application

Surface preparation

Surfaces must be clean, dry and free from grease, oil and dust. Based on the surface and type of material, a physical or chemical pre-treatment might be required. Type of pre-treatment must be determined by tests. Metals: it is recommended to assemble substrate at 40°C / 100°F (substrate temperature). Advice on specific applications is available from the Technical Department of Sika Industry.

Application

With adequate processing equipment SikaMelt®-9677 can be applied as film, dot, bead or spray application. For automated applications a suitable filter system is recommended. To meet the required application properties the adhesive viscosity can be adjusted by changing the application temperature. During breaks SikaMelt®-9677 is to be processed as follows: ≥1 h lower the temperature to 80 °C (175 °F) ≥4 h switch heating off. To guarantee a constant quality during the whole production process, it is mandatory to protect the adhesive in the melting tank with nitrogen, carbon dioxide or dried air (to avoid possible reaction of the product with humidity). At breaks or shut downs, dip nozzle in dried oil in order to prevent humidity to cure the adhesive (avoid blockage). For advice on selecting and setting up suitable processing equipment contact the System Engineering Department of Sika Industry.

Removal

Equipment and application tools can be cleaned with SikaMelt®-9900. Cured material can for cleaning purposes be swelled with SikaMelt®-9901 and needs to be removed mechanically. Uncured SikaMelt®-9677 may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Hands and exposed skin should be washed immediately using a suitable industrial hand cleaner and water. Do not use solvents!

Storage Conditions

SikaMelt®-9677 has to be stored at temperature below 30 °C (85 °F) in a dry place. For transportation purposes the exposure to temperatures between 35 °C (95 °F) up to 60 °C (140 °F) is allowed for a time period of max. 2 weeks.

Further Information

To contact Sika Corporation's Technical Department please send an email to tsmh@us.sika.com. Copy of the Safety Data Sheet is available upon request.

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.

Packaging Information

Bag	2.5 kg
Hobbock	20 kg
Drum	200 kg

Basis of Product Data

All technical data stated in this Product Data Sheet are based on laboratory tests only. Actual measured data may vary due to circumstances beyond our control.

Limited Material Warranty

Sika Corporation warrants this product for one year from date of installation to be free from manufacturing defects and to meet the technical properties on the current Product Data Sheet if used as directed within shelf life. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. **NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. SIKA SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL OR CONSEQUENTIAL DAMAGES. SIKA SHALL NOT BE RESPONSIBLE FOR THE USE OF THIS PRODUCT IN A MANNER TO INFRINGE ON ANY PATENT OR ANY OTHER INTELLECTUAL PROPERTY RIGHTS HELD BY OTHERS.**

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Further information available at: www.sikaindustry.com

Sika Corporation
30800 Stephenson Highway
Madison Heights, MI 48071
USA
Tel. +1 248 577 0020
Fax +1 248 577 0980

