

PRODUCT DATA SHEET

SikaMelt®-171 IMG

Polyolefin hot melt for vacuum lamination of TPO-foils

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	Polyolefin
Color (CQP001-1)	Yellow
Cure mechanism	Physical hardening
Density (uncured)	0.89 kg/l
Viscosity (by Brookfield)	at 180 °C 15 000 mPa·s
Softening temperature (CQP538-5)	130 °C
Application temperature	150 – 190 °C short term max. 1h 200 °C ^A
Open time (CQP559-1)	Short
Green strength (CQP557-1)	2 MPa
Shore A hardness (CQP023-1 / ISO 48-4)	72
Tensile strength (CQP036-3)	2.5 MPa
Shelf life	24 months

CQP = Corporate Quality Procedure

^{A)} only valid for nozzle

DESCRIPTION

SikaMelt®-171 IMG is a versatile thermoplastic hot melt for lamination applications. It combines very good processing properties with a broad adhesion range on non-polar and some polar substrates. Due to its specific attributes SikaMelt®-171 IMG is in particular suitable for vacuum covering and IMG-lamination.

PRODUCT BENEFITS

- Very good adhesion to polypropylene without surface treatment
- Excellent processing properties for vacuum lamination
- Low reactivation temperature
- High initial strength
- Good heat resistance

AREAS OF APPLICATION

SikaMelt®-171 IMG has very good adhesion properties on non polar olefinic substrates like polypropylene. Therefore it is suitable for permanent bonding on non-polar polymers, wood, textiles, non-woven materials and foams.

SikaMelt®-171 IMG is designed for vacuum covering and IMG-lamination (IMG = in mould graining) of door trim with TPO membranes and foils with PP foam backing for the Automotive industry. Furthermore SikaMelt®-171 IMG can be considered for the lamination of some polar substrates like PC/ABS or ABS.

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

SikaMelt®-171 IMG is a physically hardening adhesive.

CHEMICAL RESISTANCE

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.

Application

With adequate processing equipment SikaMelt®-171 IMG can be applied as film, dot, bead or spray application. When dispensing SikaMelt®-171 IMG from drums, for applications by slot die or spraying device, first transfer the material to an intermediate tank avoiding air entrapments.

For automated applications a suitable filter system is required.

To meet the required application properties the adhesive viscosity can be adjusted by adapting the application temperature (see diagram 1).

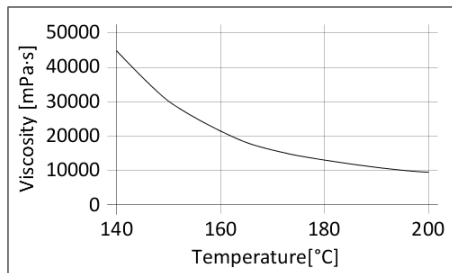


Diagram 1: Viscosity as function of temperature

During breaks SikaMelt®-171 IMG is to be processed as follows:

For breaks ≥ 1 h the heating needs to be lowered to 80 °C and for breaks ≥ 4 h the heating needs to be switched off.

To ensure a constant quality during the whole production process it is mandatory to protect the adhesive in the melting tank with nitrogen or carbon dioxide (to avoid possible reaction of the product with oxygen).

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®-005 (see also Cleaning Instructions).

SikaMelt®-171 IMG may be removed from tools and equipment with Sika® Remover-208 or another suitable solvent.

Hands and exposed skin have to be washed immediately using Sika® Cleaner-350H or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

STORAGE CONDITIONS

SikaMelt®-171 IMG has to be stored at temperature below 40 °C in a dry place.

For transportation purposes, the storage temperature can be exceeded for a period of max. 4 weeks up to 60 °C.

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

PACKAGING INFORMATION

Pail	15 kg
Pail (Cardboard, siliconized)	16 kg
Bag (cardboard)	18 kg
Drum	140 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 enduse 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 Automotive Deutschland GmbH

Flinschstrasse 10-16
60388 Frankfurt am Main
www.sikaautomotive.com

