

## PRODUCT DATA SHEET

# SikaMelt<sup>®</sup>-280 FR

PSA hot melt with flame retardant properties

**TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)**

Chemical base	Thermoplastic rubber
Color (CQP001-1)	Yellowish, clear
Cure mechanism	Physical hardening
Density	0.96 kg/l
Viscosity (by Brookfield)	at 190 °C 9 000 mPa·s
Application temperature	170 – 190 °C 200 °C <sup>A</sup> short term max. 1 h
SAFT (CQP560-1)	79 °C
Peel strength (CQP568-1)	40 N/25 mm <sup>B</sup>
Shelf life	24 months

CQP = Corporate Quality Procedure

<sup>A)</sup> only valid for nozzle

<sup>B)</sup> 23 °C / 50 % r. h.

**DESCRIPTION**

SikaMelt<sup>®</sup>-280 FR is a high performance pressure sensitive hot melt adhesive with flame retardant properties based on thermoplastic rubber for a wide range of applications.

**PRODUCT BENEFITS**

- Good tack and heat resistance
- Flame retardant properties
- High cohesion
- Very good humidity resistance

**AREAS OF APPLICATION**

SikaMelt<sup>®</sup>-280 FR is designed to stick to papers, films and metal foils, textiles, foams and a wide variety of other materials. It is used for assembly and lamination applications where flame retardant properties for the bonded system and a good heat resistance are required.

The flame resistance has to be tested and released for the application. When using SikaMelt<sup>®</sup>-280 FR for self-adhering tapes the tack stability must be tested for the application.

SikaMelt<sup>®</sup>-280 FR is not to be used on substrates containing monomeric plasticizer.

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®-280 FR is a physically hardening adhesive.

## CHEMICAL RESISTANCE

SikaMelt®-280 FR is resistant to aqueous surfactant, weak acids and caustic solutions.

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 surface and type of material, a physical or chemical pre-treatment might be required. Type of pre-treatment must be determined by preliminary tests.

### Application

With adequate processing equipment SikaMelt®-280 FR can be applied directly or by transfer method. It can be applied as film, dot, bead or spray application. For automated applications a suitable filter system is required.

Due to the better adhesion performance the direct method is usually chosen whenever possible. The transfer method is often used in combination with substrates that are porous and absorbing such as foams or when they are sensitive to high temperature such as thin PE films. To protect the adhesive surface against dust, light and oxygen it is necessary to cover the adhesive film with silicone coated paper or foil.

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

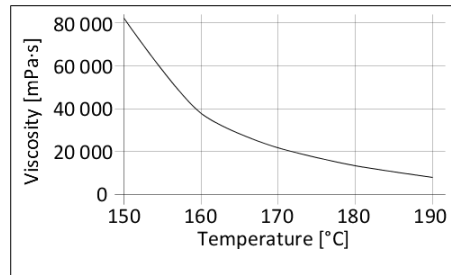


Diagram 1: Viscosity as function of temperature

During breaks SikaMelt®-280 FR is to be processed as follows:

For breaks  $\geq 1$  h the heating needs to be lowered to 80 °C and for breaks  $\geq 4$  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

SikaMelt®-280 FR 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 hand wipes such as Sika® Cleaner-350H or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

## STORAGE CONDITIONS

SikaMelt®-280 FR 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

Box	4 kg
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## 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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