

PRODUCT DATA SHEET

Sikaflex[®]-2K/MS

2-component assembly adhesive

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Properties	Sikaflex [®] -2K/MS (A)	Sikaflex [®] -2K/MS (B)
Chemical base	Silane terminated polymer (STP)	
Color (CQP001-1)	White	Gray
	mixed	Grey
Density (uncured)	1.38 kg/l	1.33 kg/l
	mixed	1.35 kg/l
Mixing ratio	by volume 1:1	
Non-sag properties	Fair	
Application temperature	5 – 30 °C	
Skin time (CQP019-1)	20 minutes ^A	
Open time (CQP526-1)	5 minutes ^A	
Curing speed (CQP046-1)	see table ^A	
Shore A hardness (CQP023-1 / ISO 48-4)	50	
Tensile strength (CQP036-1 / ISO 527)	2.4 MPa	
Elongation at break (CQP036-1 / ISO 527)	250 %	
Tensile lap-shear strength (CQP046-1 / ISO 4587)	1.4 MPa	
Service temperature (CQP513-1)	-40 – 90 °C	
Shelf life	12 months ^B	

CQP = Corporate Quality Procedure

^A) 23 °C / 50 % r.h.^B) stored between 5 and 25 °C

DESCRIPTION

Sikaflex[®]-2K/MS is a fast curing 2-component silane terminated polymer assembly adhesive which cures by chemical reaction of both components.

PRODUCT BENEFITS

- Minimal pre-treatment required for most common substrates in the Wind industry
- Fast strength build up
- High strength and flexibility
- Contains neither isocyanates nor solvents
- Easy application

AREAS OF APPLICATION

Sikaflex[®]-2K/MS is used where a strong and durable sealant or adhesive is 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 Sikaflex®-2K/MS takes place by chemical reaction of the two components. For typical strength build-up values see table below.

Time [h]	Lap-Shear Strength [MPa]
4	0.6
6	0.8
8	1

Table 1: Strength build-up Sikaflex®-2K/MS

CHEMICAL RESISTANCE

Sikaflex®-2K/MS is generally resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils; not resistant to organic acids, glycolic alcohol, concentrated mineral acids and caustic solutions or solvents.

METHOD OF APPLICATION

Surface preparation

Surfaces must be clean, dry and free from grease, oil and dust. Surface treatment depends on the specific nature of the substrates and is crucial for a long lasting bond. All pre-treatment steps must be confirmed by preliminary tests on original substrates considering specific conditions in the assembly process.

Application

Sikaflex®-2K/MS needs to be processed with an adequate dispensing system. Sikaflex®-2K/MS can be applied between 5 °C and 30 °C but changes in reactivity and application properties have to be considered. The optimum temperature for substrate and sealant is between 15 °C and 25 °C. To ensure a uniform thickness of the bondline it is recommended to apply the adhesive in form of a triangular bead (see figure 1).

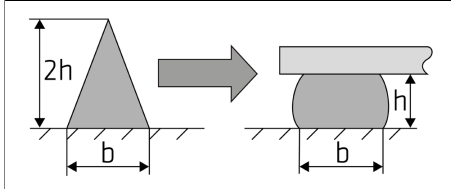


Figure 1: Recommended bead configuration

The open time is significantly shorter in hot and humid climate. The parts must always be joint within the open time. As a rule of thumb, a change of + 10 °C reduces the open time by half.

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

Tooling and finishing

Tooling and finishing must be carried out within the open time of the adhesive. We recommend the use of Sika® Tooling Agent N. Other finishing agents must be tested for suitability and compatibility.

Removal

Uncured Sikaflex®-2K/MS can be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

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!

Overpainting

Sikaflex®-2K/MS can be best painted within the skin formation time. If painting processes take place after the sealant has built a skin, adhesion could be improved by treating the joint surface with Sika® Aktivator-100 or Sika® Aktivator-205 prior to paint process. If the paint requires a baking process (> 80 °C), best performance is achieved by allowing the sealant to fully cure first. All paints have to be tested by carrying out preliminary trials under manufacturing conditions. The elasticity of paints is usually lower than of sealants. This could lead to cracking of the paint in the joint area.

STORAGE CONDITIONS

Sikaflex®-2K/MS has to be kept between 5 °C and 25 °C in a dry place. Do not expose it to direct sunlight or frost. After opening of the packaging, the content has to be protected against humidity.

The lowest allowed temperature during transportation is -15 °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

Sikaflex®-2K/MS (A)

Pail	20 l
Drum	190 l

Sikaflex®-2K/MS (B)

Pail	20 l
Drum	190 l

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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