

PRODUCT DATA SHEET

Sikaflex®-250 DM-5 + SikaBooster® P-50

Accelerated direct glazing adhesive with strong initial grip and high modulus

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base		Polyurethane
Color (CQP001-1)		Black
Cure mechanism		Moisture-curing ^A
Density (uncured)	Sikaflex®-250 DM-5	1.27 kg/l
	SikaBooster® P-50	1.10 kg/l
Booster content	by volume	2 %
Non-sag properties (CQP061-1)		Very good
Application temperature	adhesive	40 – 60 °C
	booster, ambient	15 – 35 °C
Open time (CQP526-1)		5 minutes ^B
Curing speed (CQP046-1)		See table 1
Shore A hardness (CQP023-1 / ISO 48-4)		70
Tensile strength (CQP036-1 / ISO 527)		7 MPa
Elongation at break (CQP036-1 / ISO 527)		300 %
Tear propagation resistance (CQP045-1 / ISO 34)		13 N/mm
Tensile lap-shear strength (CQP046-1 / ISO 4587)		4 MPa
Shear modulus (CQP081-1)	at 10 %	3.5 MPa
Insulation resistance (CQP079-2 / DIN IEC 60167)	at 10 V	2·10 ⁹ Ωcm
Shelf life	Sikaflex®-250 DM-5	6 months ^C
	SikaBooster® P-50	9 months ^C
Mixer		MIXPAC™ MS 13-18G

CQP = Corporate Quality Procedure

^{A)} Moisture provided by SikaBooster® P-50^{B)} 23 °C / 50 % r.h.^{C)} stored below 25 °C in unopened container
DESCRIPTION

Sikaflex®-250 DM-5 + SikaBooster® P-50 is an accelerated, high modulus polyurethane adhesive system for direct glazing applications. With the use of SikaBooster® P-50, it cures largely independently of atmospheric moisture. The product is developed for assembly bonding in automotive industry.

PRODUCT BENEFITS

- Accelerated curing
- High modulus
- High initial grip
- With most automotive glass only one activation step required
- Primerless to many paints
- No contact corrosion on aluminium
- Short cut-off string
- Good working characteristics

AREAS OF APPLICATION

Sikaflex®-250 DM-5 + SikaBooster® P-50 has been originally designed for automated and manual direct glazing applications. It is as well suited for permanent elastic assembly bonding applications in the automotive industry. It bonds well to numerous substrates. Common substrates are pretreated ceramic frits and glasses with corresponding UV protection as well as cleaned e-coated and painted surfaces.

This product is suitable for experienced professional users only.

Tests with actual substrates and conditions have to be performed ensuring adhesion and material compatibility.

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CURE MECHANISM

Sikaflex®-250 DM-5 + SikaBooster® P-50 cures by reaction with moisture provided by SikaBooster® P-50 and largely independent from atmospheric moisture. For typical strength build up data see table below.

Time	Lap-shear-strength (CQP046-1)
2 h	0.3 MPa
4 h	1.1 MPa
8 h	2.1 MPa

Table 1: Strength build up applied at 45 °C adhesive temperature

CHEMICAL RESISTANCE

Sikaflex®-250 DM-5 + SikaBooster® P-50 is generally resistant to fresh water, seawater, diluted acids and diluted caustic solutions; temporarily resistant to fuels, mineral oils, ethanol, 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, dust and contaminants. 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®-250 DM-5 + SikaBooster® P-50 needs to be processed with an adequate dispensing system. The mixer type must be respected (see table Typical Product Data). Sikaflex®-250 DM-5 + SikaBooster® P-50 shall be applied between 15 °C and 35 °C (ambient) but changes in reactivity and application properties have to be considered. The temperature for substrate needs to be at least 3 °C above the dew point.

To ensure a uniform thickness of the bondline it is recommended to apply the adhesive in form of a triangular bead (see figure 1).

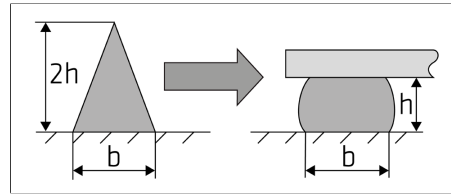


Figure 1: Recommended bead configuration

The open and curing time is significantly shorter in hot and humid climate. The parts must always be joined within the open time. For advice on selecting and setting up a suitable pump system, contact the System Engineering Department of Sika Industry. For transparent substrates, bond faces must be fully UV protected by suitable design or means.

Tooling and finishing

Sikaflex®-250 DM-5 + SikaBooster® P-50 is not suitable for tooling.

Removal

Uncured Sikaflex®-250 DM-5 + SikaBooster® P-50 may 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.

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
- General Guideline Bonding and Sealing with 1-component Sikaflex®

PACKAGING INFORMATION

Sikaflex®-250 DM-5

Pail	23 l
Drum	195 l

SikaBooster® P-50

Unipack	600 ml
Pail	23 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 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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