

PRODUCT DATA SHEET

Sikaflex® MS

High performance multi-purpose SMP sealant



DESCRIPTION

Sikaflex® MS is a tough, durable elastomeric joint sealant suitable for use in a wide range of external and internal building applications. It is based upon SMP technology resulting in a unique combination of properties ideally suited to New Zealand climatic conditions. Sikaflex® MS has excellent primerless adhesion to a wide range of common building substrates as indicated below and does not stain concrete, marble and other masonry surfaces.

USES

Sikaflex® MS has been formulated for sealing joints in and around concrete, brick, masonry, pre-cast panels, stone cladding, windows, doors and fibre cement sheeting. Suitable for use as an Airseal. Sikaflex® MS bonds well to:

- Concrete and masonry
- Cement plaster systems
- Aluminium, copper, brass and zinc
- Stainless, mild or galvanised steel
- Glass and ceramic tiles
- Glass reinforced plastics
- Fibre reinforced cement sheetings
- Timber, particleboard, hardboard and plywood (refer to Limitations section)
- Butylclad rubber products - chase sealing

CHARACTERISTICS / ADVANTAGES

- Good primerless* adhesion to most common building materials
 - Paintable any time after curing, with water-based paints (compatibility testing recommended prior to full application)
 - Will not stain masonry, marble or other surfaces
 - Very durable - BRANZ appraised
 - Neutral cure
 - Highly flexible
 - Low odour
- * Refer to Priming section.

APPROVALS / STANDARDS

BRANZ Appraised, Appraisal No. 311 (2024)

ISO 11600:2002 Class F-25LM. Certified

ASTM C920-18. Compliant

NZ Building Code Compliant

- B2 Durability: Clauses B2.3.1 (b) 15 years. (c) 5 years
- E2 External Moisture: Clause E2.3.2
- F2 Hazardous Building Materials: Clause F2.3.1

PRODUCT INFORMATION

Chemical Base	Moisture curing Silane Modified Polymer (SMP)	
Packaging	300 ml cartridges / 12 per carton 600 ml sausage unipacs / 20 per carton	
Colour	300 ml cartridges	Grey, White, Black, Bronze, Ivory and Titania
	600 ml sausage unipacs	Grey, White

Shelf Life	Twelve (12) months from date of manufacture if stored correctly as stated.
Storage Conditions	Store in original, unopened packaging in cool, dry conditions protected from direct sunlight and at temperatures between +5°C and +25°C.
Density	~ 1.40 kg/l (ISO 1183-1)

TECHNICAL INFORMATION

Shore A Hardness	~ 15 (after 28 days) (ISO 868)
Movement Capability	± 25 % (ISO 9047)
Chemical Resistance	Good to dilute acids and alkalis
Resistance to Weathering	Excellent UV resistance
Service Temperature	-40°C to +90°C

Joint Design

Weather Seals

Weather seal joints within the structure must be designed to take into consideration the joint dimensions required to accommodate any anticipated cladding movement and the movement capability of the sealant.

- The joint width for weather seals shall be greater than 10mm and less than 35mm. For wider joints refer to Sika for assistance
- Joints must be designed to accommodate a width to depth ratio of 2:1 and where appropriate the sealant shall be applied onto a suitably sized Sika PEF Backing Rod which has been pre-installed to form the base of the joint.
- As an exception to the above, refer to the table below for standard dimensions for joints between concrete cladding elements: This ratio is subject to these overriding minimum sealant depths:

Joint distance [m]	Min. joint width [mm]	Min. joint depth [mm]
2	10	10
4	15	10
6	20	10
8	30	15
10	35	17

Air Seals

This product meets the requirements of NZBC E2/AS1 Clause 9.6.1 Air-Seals. Use it to provide a flexible air seal around doors, windows, penetrations, or openings within the cladding system, to minimise the risk of air-flow carrying water into the building wall.

- The minimum joint dimension for air seals shall be 6mm wide x 6mm deep and where appropriate the sealant shall be applied onto a suitably sized Sika PEF Backing Rod which has been pre-installed to form the base of the joint.

APPLICATION INFORMATION

Curing Rate	~3 mm/24 hours (23°C / 50% r.h.) (CQP 049-2)
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BASIS OF PRODUCT DATA

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

FURTHER DOCUMENTS

- Safety Data Sheet (SDS)

LIMITATIONS

- Sikaflex® MS must not be used as follows:
- With polyethylene, polypropylene, polybutylene, polycarbonate and bitumen
 - Where it is subjected to permanent immersion in water
 - With structural glazing or floor joints
 - With pipes or in other applications where it may be subjected to hydrostatic or pneumatic pressures



(other than wind pressure)

- Where continual exposure to aggressive solvents or chemicals will occur
- Where timber or wood based products have been painted
- *Sikaflex® MS will accept waterbased and multi-component coatings. However, as with all elastomeric sealants, coatings may cause undesirable side effects. Movement accommodation ability may be reduced. Dirt pick-up and discolouration may occur in the long term.

ECOLOGY HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

APPLICATION INSTRUCTIONS

SUBSTRATE PREPARATION

Joint surfaces must be clean and free from frost and surface water. Remove all dirt, laitance, loose materials and foreign matter.

- Remove all rust, scale and protective lacquers from metal surfaces.
- Non-porous surfaces should be degreased using Sika Thinner C
- In all joints a bond breaker must be used to prevent sealant contact with the back of the joint, and hence allow optimum performance. In shallow joints self adhesive polyethylene tape can be used. Deep joints should incorporate a backing strip such as Sika PEF Rod to support the sealant while also acting as a bond breaker.

PRIMING

Sikaflex® MS adheres to many substrates without primers and/or activators. However, for optimum adhesion and critical, high performance applications, such as on multi-story buildings, highly stressed joints or extreme weather exposure, the following priming and/or pretreatment procedures shall be followed:

Non-porous substrates

Aluminium, anodised aluminium, stainless steel, PVC, galvanised steel, powder coated metals or glazed tiles have to be cleaned and pre-treated using Sika® Aktivator- 205, wiped on with a clean towel. Before sealing, allow a flash-off time of > 15 minutes (< 6 hours). Other metals, such as copper, brass and titanium-zinc, also have to be cleaned and pre-treated using Sika® Aktivator-205, wiped on with a clean towel. After the necessary flash-off time, use a brush to apply Sika® Primer-3 N and allow a further flash-off time of > 30 minutes (< 8 hours) before sealing the joints.

Porous substrates

Concrete, aerated concrete and cement based renders, mortars and bricks shall be primed using Sika® Primer-3 N applied with a brush. Before sealing, allow a flash-off time of > 30 minutes (< 8 hours). For more detailed advice and instructions please contact the local Sika Technical Services Department. Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

APPLICATION METHOD / TOOLS

Application temperature: +5°C to +40°C.

Cartridge: Cut the end off threaded stub on cartridge, screw on nozzle and cut nozzle to desired bead size at a 45° angle.

Sausage: Fit Sikaflex® MS sausage into Sika barrel sealant gun and using wire cutters cut the sausage below the metal crimp at one end. Place sausage nozzle over open end of gun and screw on end cap to hold in place. Extrude the sealant firmly into joint to ensure complete contact with joint faces. Smooth finish if necessary with a spatula wetted with a dilute detergent solution.

CLEANING OF TOOLS

Clean tools immediately after use with Sika Thinner C, or Sika Wonder Wipes.

LOCAL RESTRICTIONS

Please note that as a result of specific local regulations the performance of this product may vary from country to country. Please consult the local Product Data Sheet for the exact description of the application fields.

LEGAL NOTES

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. It may be necessary to adapt the above disclaimer to specific local laws and regulations. Any changes to this disclaimer may only be implemented with permission of Sika® Corporate Legal in Baar.

Sika (NZ) Limited

85-91 Patiki Road
Avondale, Auckland 1026
New Zealand
0800 745 269
www.sika.co.nz



Product Data Sheet

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