

# PRODUCT DATA SHEET

## Sikaflex<sup>®</sup>-118 Extreme Grab

### CONSTRUCTION ADHESIVE



#### DESCRIPTION

Sikaflex<sup>®</sup>-118 Extreme Grab is a 1-component, solvent- and phthalate-free adhesive with very high initial grab. Suitable for use in hot and tropical climatic conditions.

#### USES

Sikaflex<sup>®</sup>-118 Extreme Grab is designed for indoor and outdoor bonding of various objects such as stones, bricks, window and door sills, mirrors, wood beams and heavy moldings.

Sikaflex<sup>®</sup>-118 Extreme Grab is designed for bonding concrete, mortar, natural stones, clinker, fiber cement, ceramic, wood and metals.

#### CHARACTERISTICS / ADVANTAGES

- Very high initial grab
- Fixing of heavy objects without temporary fixation
- Mirror bonding adhesive
- Good workability
- Very low emissions
- Strong and elastic bond

#### SUSTAINABILITY

- EMICODE EC1 PLUS R
- Émissions dans l'air intérieur A+

#### PRODUCT INFORMATION

<b>Chemical base</b>	Silane terminated polymer
<b>Packaging</b>	290 mL cartridge, 12 cartridges per box
<b>Colour</b>	White
<b>Shelf life</b>	Sikaflex <sup>®</sup> -118 Extreme Grab has a shelf life of 12 months from the date of production, if stored properly in undamaged, original, sealed packaging, and if the storage conditions are met.
<b>Storage conditions</b>	Sikaflex <sup>®</sup> -118 Extreme Grab shall be stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +25 °C.
<b>Density</b>	~1,30 kg/l (ISO 1183-1)

#### TECHNICAL INFORMATION

<b>Shore A Hardness</b>	~55 (after 28 d)	(ISO 868)
<b>Tensile Strength</b>	~2,2 N/mm <sup>2</sup>	(ISO 37)
<b>Elongation at Break</b>	~500 %	(ISO 37)
<b>Tear Propagation Resistance</b>	~9,0 N/mm	(ISO 34)

## APPLICATION INFORMATION

<b>Yield</b>	1 Cartridge (290 mL)	
	<b>Yield</b>	<b>Dimension</b>
	~100 spots	Diameter = 30 mm Thickness = 4 mm
	~15 m bead	V-cut nozzle, traingular bead (~20 mL per linear meter)
<b>Sag Flow</b>	0 mm (20 mm profile, 23 °C)	(ISO 7390)
<b>Ambient Air Temperature</b>	+5 °C min. / +40 °C max.	
<b>Substrate Temperature</b>	+5 °C min. / +40 °C max., min. 3 °C above dew point temperature	
<b>Curing Rate</b>	~3 mm/24 h (23 °C / 50 % r.h.)	(CQP 049-2)
<b>Skin time</b>	~15 min (23 °C / 50 % r.h.)	(CQP 019-1)

## APPLICATION INSTRUCTIONS

For the application of Sikaflex®-118 Extreme Grab all generally accepted rules of building and construction apply.

### SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. Paint, cement laitance and other poorly adhering contaminants must be removed.

For optimum adhesion and critical, high performance applications the following priming and/or pre-treatment procedures shall be followed:

#### Non-porous substrates

Aluminium, anodised aluminium, stainless steel, 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 bonding, allow a flash-off time of > 15 minutes (< 2 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 (< 4 hours) before bonding. PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Before bonding, allow a flash-off time of > 15 minutes (< 4 hours).

#### 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 bonding, allow a flash-off time of > 30 minutes (< 4 hours).

For more detailed advice and instructions please contact our Technical Department.

Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a sur-

face, nor do they improve the strength of the surface significantly.

### APPLICATION METHOD / TOOLS

After the necessary substrate preparation, apply Sikaflex®-118 Extreme Grab as traingular beads in intervals of a few centimetres each. Use hand pressure only to set the object to be bonded into position before a skin occurs. An incorrectly positioned object can easily be unfastened and repositioned during the first few minutes after application. If necessary, use adhesive tapes, wedges, or props to hold the assembled objects together during the initial curing hours.

Fresh, uncured adhesive remaining on the surface must be removed immediately.

Final strength will be reached after complete curing of Sikaflex®-118 Extreme Grab, i.e. after 24 to 48 hours at +23 °C, depending on the environmental conditions and adhesive layer thickness.

### CLEANING OF EQUIPMENT

Clean all tools and application equipment immediately after use with Sika® Remover-208 . Once cured, residual material can only be removed mechanically. For cleaning skin use Sika® Cleaning Wipes-100.

## FURTHER DOCUMENTS

- Safety Data Sheet
- Pre-treatment Chart Sealing and Bonding

## IMPORTANT CONSIDERATIONS

- For good workability, the adhesive temperature shall be +20 °C.
- Application during high temperature changes is not recommended (movements during the curing).
- Before bonding, check adhesion and resistance of paints and coatings by carrying out a trail.
- Sikaflex®-118 Extreme Grab can be overpainted with most conventional water-based coating and paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials. The best over-painting results are obtained when the adhesive is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the adhesive and lead to cracking of the paint film.
- Colour variations may occur due to exposure to chemicals, high temperatures and/or UV-radiation (especially with the colour shade white). However, a change in colour is purely of aesthetic nature and does not adversely influence the technical performance or durability of the product.
- Always use Sikaflex®-118 Extreme Grab in conjunction with mechanical fixings for overhead applications of heavy items.
- For very heavy items provide temporary support until Sikaflex®-118 Extreme Grab has fully cured.
- Full surface applications / bondings are not recommended since the inner part of the adhesive layer may never cure.
- Do not use Sikaflex®-118 Extreme Grab on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the adhesive.
- Do not use Sikaflex®-118 Extreme Grab on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and certain plasticized synthetic materials (pre-trials shall be carried out or contact Sika Technical Department).
- Do not use Sikaflex®-118 Extreme Grab for glass bonding if the bond line is exposed to sunlight.
- Do not use Sikaflex®-118 Extreme Grab for structural bonding.
- Do not expose uncured Sikaflex®-118 Extreme Grab to alcohol containing products as this may interfere with the curing reaction.

## BASIS OF PRODUCT DATA

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

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## LOCAL RESTRICTIONS

Note that as a result of specific local regulations the declared data and recommended uses for this product may vary from country to country. Consult the local Product Data Sheet for the exact product data and uses.

## 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.

## 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.



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All products are supplied under a management system certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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