BUILDING TRUST

PRODUCT DATA SHEET

# Sikaflex®-116 High Grab

Construction adhesive

## DESCRIPTION

Sikaflex®-116 High Grab is a construction adhesive with high initial grab which bonds most construction material substrates.

## USES

An adhesive to bond construction components and materials such as:
- Concrete
- Masonry
- Most stones
- Ceramic
- Wood
- Metals
- Glass
- Mirrors

For interior and exterior use

## CHARACTERISTICS / ADVANTAGES

- High initial grab
- Fixing of heavy items without temporary fixation
- Good workability
- Very low emissions
- Adhesive-sealant with CE marking

## SUSTAINABILITY

- Conformity with LEED v4 EQc 2: Low-Emitting Materials
- VOC emission classification GEV-Emicode EC1PLUS, license number 11489/20.10.00
- VOC emission classification of building materials RTS M1
- Class A+ according to French Regulation on VOC emissions

## APPROVALS / CERTIFICATES

- CE Marking and Declaration of Performance to EN 15651-1 - Sealants for non-structural use in joints in buildings - Facade elements: Class F EXT-INT CC 20HM

## PRODUCT INFORMATION

| | | |
|---|---|---|
| **Composition** | Silane terminated polymer | |
| **Packaging** | 290 ml cartridge: 12 cartridges per box | |
| **Shelf life** | 12 months from the date of production | |
| **Storage conditions** | The product must be stored in original, unopened and undamaged packaging in dry conditions at temperatures between +5 °C and +25 °C. Always refer to packaging. | |
| **Colour** | White | |
| **Density** | ~1,40 kg/l | (ISO 1183-1) |

## TECHNICAL INFORMATION

| | | |
|---|---|---|
| **Shore A hardness** | ~45 (after 28 days) | (ISO 868) |
| **Tensile strength** | ~2,2 N/mm² | (ISO 37) |
| **Tensile strain at break** | ~500 % | (ISO 37) |
| **Tear propagation resistance** | ~7,0 N/mm | (ISO 34) |
| **Service temperature** | –40 °C min. / +80 °C max. | |

## APPLICATION INFORMATION

**Yield**

| **Yield**<br>**1 Cartridge (290 ml)** | **Dimension** |
|---|---|
| ~100 spots | Diameter = 30 mm<br>Thickness = 4 mm |
| ~5 m bead * | Nozzle diameter = 5 mm<br>(~60 ml per linear meter) |

* Note: For heavy items more or thicker beads (up to ~120 ml per linear metre) maybe required.
These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

| | | |
|---|---|---|
| **Sag flow** | 0 mm (20 mm profile, 23 °C) | (ISO 7390) |
| **Ambient air temperature** | +5 °C min. / +40 °C max. | |
| **Substrate temperature** | +5 °C min. / +40 °C max. Minimum +3 °C above dew point temperature | |
| **Curing rate** | ~3 mm/24 hours (+23 °C / 50 % r.h.) | (CQP* 049-2)<br>*Sika Corporate Quality Procedure |
| **Skinning time** | ~20 min (+23 °C / 50 % r.h.) | (CQP 019-1) |

## 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.

## FURTHER INFORMATION

- Pre-treatment Chart Sealing and Bonding

## IMPORTANT CONSIDERATIONS

- For optimum workability, the recommended adhesive temperature is +20 °C.
- Application during high temperature changes is not recommended (movement during the curing).
- Before bonding, check adhesion and compatibility of paints and coatings by carrying out preliminary trials.
- Sikaflex®-116 High Grab can be overpainted with most conventional water-based coating and paint systems. However, they 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. Note that 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®-116 High Grab in conjunction with mechanical fixings for overhead applications or heavy items.
- For very heavy items provide temporary support until Sikaflex®-116 High Grab has fully cured.
- Full surface applications / fixings are not recommended since the inner part of the adhesive layer may never cure.
- Before using on reconstituted, cast or natural stone, contact Sika Technical Services.
- Do not use on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might leach oils, plasticisers or solvents that could degrade the adhesive.
- Do not use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and certain plasticised synthetic materials. Preliminary trials are recommended or contact Sika® Technical Services.
- Do not use for glass bonding if the bond line is exposed to sunlight.
- Do not use for structural bonding.
- Do not expose uncured Sikaflex®-116 High Grab to alcohol containing products as this may interfere with the curing reaction.

## ECOLOGY, HEALTH AND SAFETY

User must read the most recent corresponding Safety Data Sheets (SDS) before using any products. The SDS provides information and advice on the safe handling, storage and disposal of chemical products and contains physical, ecological, toxicological and other safety-related data.

## APPLICATION INSTRUCTIONS

### SUBSTRATE PREPARATION

The substrate must be sound, clean, dry and free of all contaminants such as dirt, oil, grease, cement laitance, old sealants and poorly bonded paint coatings which could affect adhesion of the adhesive.
For optimum adhesion and critical, high performance applications the following priming and/or pre-treatment procedures must be followed:

**Non-porous substrates**
Aluminium, anodised aluminium, stainless steel, galvanised steel, powder coated metals or glazed tiles, slightly roughen surface with a fine abrasive pad.
Clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth.
Before bonding / sealing, allow a waiting time of > 15 minutes (< 6 hours).
Other metals, such as copper, brass and titanium-zinc, clean and pre-treat using Sika® Aktivator-205 applied with a clean cloth. After a waiting time of > 15 minutes (< 6 hours). Apply Sika® Primer-3 N applied by brush. Allow a further waiting time of > 30 minutes (< 8 hours) before bonding / sealing.
PVC has to be cleaned and pre-treated using Sika® Primer-215 applied with a brush. Allow a waiting time of > 15 minutes (< 8 hours) before bonding / sealing.

**Porous substrates**
Concrete, aerated concrete and cement based renders, mortars and bricks, prime surface using Sika® Primer-3 N applied by brush.
Before bonding / sealing, allow a waiting time of > 30 minutes (< 8 hours).
For more detailed advice and instructions contact Sika Technical Services.

Note: Primers are adhesion promoters and not an alternative to improve poor preparation / cleaning of joint surfaces. Primers also improve the long term adhesion performance of a sealed joint.

### APPLICATION METHOD / TOOLS

**Bonding Procedure**
After the necessary substrate preparation, prepare the end of the cartridge before or after inserting into the sealant gun then fit the nozzle.
Apply in beads, strips or spots at intervals of a few centimetres each. Use hand pressure only to fix the components to be bonded into position before skinning of the adhesive occurs. Incorrectly positioned components can easily be unbonded and repositioned during the first few minutes after application. If necessary, use temporary adhesive tapes, wedges, or supports to hold the assembled components together during the initial curing time.
Fresh, uncured adhesive remaining on the surface must be removed immediately. Final strength will be reached after complete curing of Sikaflex®-116 High 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, hardened material can only be removed mechanically. For cleaning skin use Sika® Cleaning Wipes-100.

## 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 exact product data and uses.

## 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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