PRODUCT DATA SHEET
Sikaflex® Construction

1-part polyurethane sealant for building joints

PRODUCT DESCRIPTION
Sikaflex® - Construction is a one part, moisture curing, elastic joint sealant based on polyurethane. It is suitable for outdoor applications.

USES
Universal joint sealing compound for building construction, e.g.

For movement joints in
- Precast concrete construction
- Balcony parapets
- Bridge cantilevers
- Retaining walls
- Subways

For caulkng of
- Window frames and doors
- Skirtings
- Wall/floor joints
- Shutter housings

CHARACTERISTICS / ADVANTAGES
- One-component, ready for use
- Good adhesion to many substrates
- Excellent workability, easy to use
- Can be overpainted
- Non-sag
- Bubble-free curing
- High tear resistance
- Weather resistance, excellent aging resistance

TESTS

APPROVAL / STANDARDS
- ISO11600, Type F, Class 20LM
- ASTM C920, Type S, Grade NS, Class 25, Use NT, G, M and A
# PRODUCT DATA

## COLOURS
White, Concrete Grey, Black, Beige, Dark Amber, Quartz Grey, Redish Brown

## PACKAGING
600ml sausages, 20 ssg per box

## STORAGE
STORAGE CONDITIONS / SHELF-LIFE
12 months from date of production if stored properly in undamaged and unopened original sealed packaging in cool dry conditions. Protect from direct sunlight and frost.

## TECHNICAL DATA

### CHEMICAL BASE
Polyurethane (moisture-curing)

### DENSITY
(According to DIN 53479)
Approx. 1.3kg/ltr (colour concrete Grey)

### SKINNING TIME
60 minutes (at +23°C / 50% r.h.)

### CURING RATE
Approx. 1.5mm/24 hours (at +23°C / 50% r.h.)

### VOC DATA
VOC content (ready to use) not exceeding 250gm/litre [Type of regulated paint under the Air Pollution Control (volatile organic compounds) Regulation of Hong Kong: (Architectural Sealants)].

## MECHANICAL / PHYSICAL PROPERTIES

### TEAR STRENGTH
(According to DIN 53 515)
~ 6N/mm (+23°C / 50% r.h.)

### ELONGATION AT BREAK
(According to DIN 53 504)
>600% (+23°C / 50% r.h.)

### SAG FLOW
(According to DIN EN ISO 7390)
0mm, very good

### ELASTIC RECOVERY
(According to DIN EN ISO 7389 B)
>85% (+23°C / 50% r.h.)
MOVEMENT CAPABILITY

(According to ASTM C920 TYPE S, GRADE NS, CLASS 25, USE NT, G.M. & A) 25%

SYSTEM INFORMATION

APPLICATION DETAILS

<table>
<thead>
<tr>
<th>Joint Width</th>
<th>10mm</th>
<th>15mm</th>
<th>20mm</th>
<th>25mm</th>
<th>30mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Joint Depth</td>
<td>8mm</td>
<td>8mm</td>
<td>10mm</td>
<td>12mm</td>
<td>15mm</td>
</tr>
<tr>
<td>Joint length/ssg</td>
<td>~7.5m</td>
<td>~4.5m</td>
<td>~2.5m</td>
<td>~1.6m</td>
<td>~1.3m</td>
</tr>
</tbody>
</table>

CONSUMPTION / COVERAGE

JOINT DESIGN

A) Façade joints (precast concrete elements)
   (According to DIN 18540/ISO 11600)

B) For other, common applications:
   Sealant-bead diameter (joint factor)

   - Width: Up to 10 mm joint width = 1 : 1
   - More than 10 mm joint width = 2 : 1 (min. depth 8mm)
   - Min. joint width for window caulking: 10 mm

All joints must be properly designed and dimensioned by the specifier and
the main contractor in accordance with the relevant standards, because
changes are not usually feasible after construction. The basis for calculation
of the necessary joint width are the technical values of the joint sealant and
the adjacent building materials, plus the exposure of the building, its
method of construction and its dimensions.

MAX. JOINT WIDTH

35 mm

MIN. JOINT WIDTH

10 mm (Joint movement is not exceeding 25%)

MAX. PERMISSIBLE JOINT MOVEMENT

25% of average joint width ( expansion-contraction)

MAX. PERMISSIBLE SHEAR MOVEMENT

20% of average joint width ( longitudinal or transversal to joint)
SURFACE QUALITY
Clean and dry, homogeneous, free from oils and grease, dust and loose of friable particles, cement laitance must be removed.

SUBSTRATE PREPARATION
Non porous substrates:
e.g. powder coatings etc. have to be cleaned with a fine abrasive pad and Sika® Activator by using a clean towel / cloth.
After a flash off time of at least 15 min, apply Sika® Primer 3 N by using a brush.
Before sealing allow a flash off time of at least 30 min. (max. 8 hrs.).
For PVC use Sika® Primer 215.
Before sealing allow a flash off time of at least 30 min. (max. 8 hrs.).

Porous substrates and metal:
e.g concrete, aerated concrete and cementitious renders, mortars, brick, etc. have to be primed with Sika® Primer 3 N by using a brush.
Before sealing allow a flash off time of at least 30 min. (max. 8 hrs.).

Important note: Primers are only adhesion promoters. They neither substitute for the correct cleaning of the surface nor improve their strength significantly.

Primers improve long term performance of a sealed joint. For further information refer to the Sika® Primer Table.

APPLICATION INSTRUCTIONS

PRIMING
For the selection of the suitable primer, please consult Sika-Primer table or our Technical Services Department.

BACK-UP MATERIAL
Soft, round or flat polyethylene profiles.

APPLICATION METHOD/TOOLS
- Protect joint flanks with masking tape.
- Insert back-up profile, apply primer and observe waiting time.
- Apply joint sealant with hand – or air pressure gun, avoiding air entrapment. Level sealant with trowel to concave finish.
- Where necessary, smooth sealant with clean water, adding a few drops of a synthetic detergent.
- Remove masking tape before sealant has started to cure.

SERVICE TEMPERATURE
-40°C to +70°C

SUBSTRATE TEMPERATURE
+5°C to +40°C max.
**AMBIENT TEMPERATURE**

+5°C to +40°C max.

**SUBSTRATE MOISTURE CONTENT**

Dry

**CLEANING OF TOOLS**

Clean all tools and application equipment with Sika® Remover 208/Sika® Handclean immediately after use. Hardened/cured material can only be removed mechanically.

**NOTES ON APPLICATION / LIMITATIONS**

- When smoothing the sealant, please observe that no liquid is allowed to penetrate between sealant and joint flank.
- To maintain max. movement capacity, do not overcoat joint sealant completely, only the joint sides should be overcoated to max. 1 mm width. Should overcoating be necessary, trials must be carried out to check adhesion, compatibility and drying behaviour of coating.
- Compatible coatings may cover the joint sides to max. 1 mm. The compatibility must be tested according to DIN 52 452-2.
- Insufficient ventilation or lack of moisture slows curing rate.
- Silicone based substrates can negatively influence curing as well as bonding properties of sealant.
- Do not apply to concrete substrate treated with transparent coatings (glazed).
- Colour may be influenced by exposure to weathering, UV or chemicals.
- Do not directly use Sikaflex® Construction as a glass sealer, on bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils,plastisicers or solvents which could attack the sealant.
- Do not use Sikaflex® Construction to seal swimming pools.
- Do not mix with or expose uncured Sikaflex® Construction to substances that may react with isocyanates, especially alcohols which are often components within e.g. thinners, solvents, cleaning agents and formwork releasing compounds. Such contact could interfere or prevent the cross linking curing reaction of the material.
- Not suitable for joint with water pressure or permanent water immersion.
- Before using on natural stone contact our Technical Services Department.
- Only use in good ventilated areas.
- The freshly applied sealant has a smell similar to ‘Amaretto’ until it has fully cured(benzaldehyde).
VALUE BASE
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.

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.

HEALTH AND SAFETY INFORMATION
For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Material Safety Data Sheet 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. 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.

FOR MORE PRODUCT NAME® INFORMATION:

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