

**Product Data Sheet (Temporary)**

Vision 2: 01/2013

Sikaflex®-Construction (AP)

# Sikaflex®-Construction (AP)

## One-part polyurethane elastic adhesive /sealant

### Product Description/Uses

Sikaflex®-Construction (AP) is a one-part, moisture curing, elastic joint sealant suitable for movement and connection joints.

### Characteristics / Advantages

- One-component, ready to use
- Good adhesion to many substrates
- Excellent workability, easy to smooth
- Can be overpainted / sanded
- Low stress to the substrates

### Tests

#### Approval / Standard

ISO 11600 (Type F 20LM)

ISO 11600 (Type F 25HM)

ASTM C 920 + 100/-50

### Product Data

#### Form

#### Colours

White, Grey, Black

#### Packaging

600ml sausages

### Storage

#### Storage Conditions / Shelf-Life

12 months from date of production if stored in undamaged original sealed containers, in dry conditions and protected from direct sunlight at temperatures between +10°C and +25°C.

### Technical Data

#### Chemical Base

1-component polyurethane, moisture curing.

#### Density

1.30 kg/l approx.

(DIN 534793)

#### Skinning Time

90-120 minutes (23°C / 50% r.h.)

# Construction

|                            |   |                   |
|----------------------------|---|-------------------|
| <b>Curing Rate</b>         | 4 mm/24 h approx. (23°C / 50% r.h.)     |                   |
| <b>Movement Capability</b> | 25%                                     | (ISO 11660)       |
| <b>Joint Dimensions</b>    | Min. width = 10 mm / max. width = 35 mm |                   |
| <b>Sag- Flow</b>           | 0 mm, very good                         | (DIN EN ISO 7390) |

## Mechanical/ Physical properties

|                            |   |                     |
|----------------------------|---|---------------------|
| <b>Tensile Strength</b>    | 1.2 N/mm <sup>2</sup> approx. (23°C / 50% r.h.)                 | (DIN 53515)         |
| <b>Shore A Hardness</b>    | 25 after 28 days approx. (23°C / 50% r.h.)                      | (DIN 53505)         |
| <b>E-Modulus</b>           | <0.4 N/mm <sup>2</sup> approx. at 100% elongation after 28 days | (DIN EN ISO 8340)   |
| <b>Elongation at Break</b> | 700% approx. (23°C / 50% r.h.)                                  | (DIN 53504)         |
| <b>Elastic Recovery</b>    | 85% approx. (23°C / 50% r.h.)                                   | (DIN EN ISO 7389 B) |

## Resistance

**Chemical Resistance**

Resistant to fresh water, seawater, limewater, sewage effluent, diluted acids and caustic solutions;

Temporarily resistant to fuels, mineral oils, vegetable and animal fats and oils;

Not resistant to organic acids, alcohol, concentrated mineral acids and caustic solutions or solvents.

The above information is offered for general guidance only. Advice on specific application will be given on request.

## System Information

### Consumption / Joint Design

The joint width must be designed to suit the movement capability of the sealant. In general the joint width must be > 10 mm and < 35 mm. A width to depth ratio of ~ 2 : 1 must be maintained.

#### Standard design dimensions for concrete elements as per DIN 18 540 /table 3:

|                         |    |         |         |         |         |
|-------------------------|----|---------|---------|---------|---------|
| Joint distance [m]      | 2  | 2 - 3.5 | 3.5 - 5 | 5 - 6.5 | 6.5 - 8 |
| Design joint width [mm] | 15 | 20      | 25      | 30      | 35      |
| Min. joint width [mm]   | 10 | 15      | 20      | 25      | 30      |
| Joint depth [mm]        | 8  | 10      | 12      | 15      | 15      |

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 as well as the exposure of the building, its method of construction and its dimensions.

#### Approximate consumption

|                           |       |       |       |       |       |
|---------------------------|-------|-------|-------|-------|-------|
| Joint width [mm]          | 10    | 15    | 20    | 25    | 30    |
| Joint depth [mm]          | 8     | 8     | 10    | 12    | 15    |
| Joint length / 600 ml [m] | ~ 7.5 | ~ 4.5 | ~ 2.5 | ~ 1.6 | ~ 1.3 |

*Backing:* Use only closed cell, polyethylene foam backing rods.

### Substrate Quality

Surface must be clean, dry, homogeneous and free from oil, grease, dust and loose or friable particles. Cement laitance must be removed.

|   |  |
|---|--|
| <b>Substrate Preparation / Priming</b>      | <p><i>Non porous substrates:</i><br/>E.g. metals, powder coatings etc. have to be cleaned with a fine abrasive pad and Sika® Aktivator-205 (Sika® Cleaner-205) 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.).</p> <p><i>Porous substrates:</i><br/>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.).</p> <p>Important note: Primers are only adhesion promoters. They neither substitute for the correct cleaning of the surface nor improve their strength significantly.</p> <p>Primers improve long term performance of a sealed joint.</p> <p>For further information refer to the Sika® Primer table.</p>  |
| <b>Application Conditions / Limitations</b> |  |
| <b>Substrate Temperature</b>                | +5°C min. / +35°C max.   |
| <b>Ambient Temperature</b>                  | +5°C min. / +35°C max.   |
| <b>Substrate Moisture Content</b>           | Dry  |
| <b>Application Instructions</b>             |  |
| <b>Application Method / Tools</b>           | <p>Sikaflex®-Construction (AP) is supplied ready to use.</p> <p>After suitable joint and substrate preparation, insert backing rod to required depth and apply primer if necessary. Insert cartridge into sealant gun and firmly extrude Sikaflex®-Construction (AP) into joint making sure that it is full contact with the side of the joint. Fill the joint, avoiding air entrapment. Sikaflex®-Construction (AP) must be tooled firmly against joint sides to ensure good adhesion.</p> <p>Masking tape must be used where sharp exact joint lines or exceptionally neat lines are required. Remove the tape whilst the sealant is still soft. Slick joint with smoothing liquid for a perfect sealant surface.</p>  |
| <b>Cleaning of Tools</b>                    | <p>Clean all tools and application equipment with Sika® Remover-208 / Sika® TopClean-T immediately after use. Hardened / cured material can only be mechanically removed.</p>  |
| <b>Notes on Application / Limitations</b>   | <p>Compatible coatings may cover the joint sides to max. 1 mm. The compatibility must be tested according to DIN 52 452-2.</p> <p>Colour deviations may occur due to exposure to chemicals, high temperatures, UV-radiation (especially with colour shade white). However a change in colour will not adversely influence the technical performance or the durability of the product.</p> <p>Before using on natural stone contact our Technical Service.</p> <p>Do not use Sikaflex®-Construction (AP) as a glass sealer, on bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticisers or solvents which could attack the sealant.</p> <p>Do not use Sikaflex®-Construction (W) to seal swimming pools.</p> <p>Not suitable for joints with water pressure or permanent water immersion.</p> <p>The freshly applied sealant has a smell similar to 'Amaretto' until it has fully cured (benzalehyde).</p> <p><b>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.</b></p> |

|                                      |  |
|--------------------------------------|--|
| <b>Value Base</b>                    | 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.   |
| <b>Local Restrictions</b>            | 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.  |
| <b>Health and Safety Information</b> | 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.  |
| <b>Legal Notes</b>                   | 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. |

**Sika (China) Ltd.**

No.28 Jingdong Road, Suzhou Industrial Park,  
JiangSu, P.R. China

Postal Code: 215121

Tel: (86) 512 6273 2888

Fax: (86) 521 6287 7070

www.sika.cn



ISO 9001 : 2000  
證書編號 : CC 3576



ISO 14001 : 2004  
證書編號 : CC 3577

The product is manufactured under HKQAA  
ISO9001/ISO14001 certified quality environmental  
management system.