

**Product Data Sheet**  
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Sikaflex® AT-Connection

## Sikaflex® AT-Connection

The universal construction sealant for connection joints

### Product Description

Sikaflex® AT-Connection is a 1-part, moisture curing elastic sealant based on Silane Terminated Polymers. Ideal for connection and movement joints between porous and non-porous substrates. Sikaflex® AT-Connection is odourless and solvent free, very suitable for both internal and external use.

### Uses

■ Sikaflex® AT-Connection meets the requirements for all kinds of connection joints, window and door perimeter joints, balcony parapets joints, façade and metal cladding joints and many other construction and movement joints.

### Characteristics / Advantages

- Movement capability 25%
  - Silicone free and over-paintable\*
  - Good adhesion on porous and non porous substrates
  - Primerless adhesion on many substrates
  - Good UV resistance and colour stability
  - Odourless and solvent free
  - Very good workability, (low extrusion force, excellent smoothability)
  - High mechanical properties
- (\*See notes of application)

### Tests

**Approval / Standard** ISO 11600 F 25 HM / 20LM SKZ Würzburg

### Product Data

#### Form

**Colours** Brown, black, grey, white, other colours to order

**Packaging** 300 ml cartridges, 12 pc per box  
600 ml sausages, 20 pc per box

#### Storage

**Storage Conditions / Shelf-Life** 9 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

<b>Chemical Base</b>	1-part Silane Terminated Polymers (PU-Hybrid technology, moisture curing)
<b>Density</b>	~ 1.35 kg/l depending on colour (DIN 53479)
<b>Skinning Time</b>	~ 60 minutes (+23°C / 50% r.h.)
<b>Curing Rate</b>	> 2 mm/24 hours (+23°C / 50% r.h.)
<b>Movement Capability</b>	25% HM and 20% LM
<b>Joint Dimensions</b>	Min. width = 10 mm / max. width = 35 mm  The sealing of joints of widths less than 10mm may be possible providing the sealant remains within its stated movement capability MAF and all joints are designed in accordance with B.S 6093: 1993.
<b>Sag Flow</b>	0 mm , very good (DIN EN ISO 7390)
<b>Service Temperature</b>	-40 °C to +70 °C

## Mechanical / Physical Properties

<b>Tear Strength</b>	~ 4.5 N/mm <sup>2</sup> (+23°C / 50% r.h.) (DIN 53515)
<b>Shore A Hardness</b>	~ 25 after 28 days (+23°C / 50% r.h.) (DIN 53505)
<b>E-Modulus</b>	~ 0.4 N/mm <sup>2</sup> at 100% elongation (+23°C) (DIN EN ISO 8340)
<b>Elongation at Break</b>	~ 450% (+23°C / 50% r.h.) (DIN 53504)
<b>Elastic Recovery</b>	> 70% (+23°C / 50% r.h.) (DIN EN ISO 7389 B)

## System Information

### Application Details

#### 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 observed.

Minimum joint width for perimeter joints around windows: 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 usually not 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.

*Approximate consumption:*

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

*Backing:*

Use only closed cell, polyethylene foam backing rods.

#### Substrate Quality

Clean and dry, homogeneous, free from oils and grease, dust and loose or friable particles. Cement laitance and incompatible paints must be removed.

<b>Substrate Preparation / Priming</b>	<p>Sikaflex® AT-Connection generally has strong adhesion to most clean, sound substrates. For optimum adhesion and critical, high performance applications such as multi story building work, for high stress bonding joints or in case of extreme weather exposure substrate primers and cleaners must be used. If in doubt apply product in test area first.</p> <p><i>Non porous substrates:</i> E.g. metals, aluminium, powder coatings, etc., have to be cleaned with a fine abrasive pad and SikaCleaner®-205 by using a clean towel / cloth. Before sealing allow a flash off time of at least 15 min. - max 6 hrs.</p> <p>For metals like copper, brass, titanium-zinc use SikaPrimer®-3 N as an adhesion promoter.</p> <p><i>Porous substrates:</i> E. g concrete, aerated concrete and cementitious renders, mortars, brick, etc. have to be primed with SikaPrimer®-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 do they improve the bond strength significantly.</p> <p>Primers improve the long term performance and durability of a sealed joint.</p> <p>For further information refer to the Sika® Primer Product Data Sheet.</p>						
<b>Application Conditions / Limitations</b>	<table border="1"> <tr> <td data-bbox="311 824 582 855"><b>Substrate Temperature</b></td> <td data-bbox="624 824 1508 855">+5°C min. / +40°C max.</td> </tr> <tr> <td data-bbox="311 869 582 900"><b>Ambient Temperature</b></td> <td data-bbox="624 869 1508 900">+5°C min. / +40°C max.</td> </tr> <tr> <td data-bbox="311 913 582 945"><b>Substrate Humidity</b></td> <td data-bbox="624 913 1508 945">Dry</td> </tr> </table>	<b>Substrate Temperature</b>	+5°C min. / +40°C max.	<b>Ambient Temperature</b>	+5°C min. / +40°C max.	<b>Substrate Humidity</b>	Dry
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<b>Substrate Humidity</b>	Dry						
<b>Application Instructions</b>	<p><b>Application Method / Tools</b></p> <p>Sikaflex® AT-Connection 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 the sealant gun and firmly extrude Sikaflex® AT-Connection into the joint making sure that it is in full contact with the side of the joint. Fill the joint, avoiding air entrapment. Sikaflex® AT-Connection should be tooled firmly against the joint sides to ensure complete contact and good adhesion.</p> <p>Masking tape should 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 / Thinner C immediately after use. Hardened / cured material can only be removed mechanically.</p>						
<b>Notes on Application / Limitations</b>	<p>For external designated movement joints we recommend priming for maximum durability.</p> <p>For all indoor applications no priming required.</p> <p>Elastic sealants should generally not be over painted.</p> <p>If there is over painting of the sealant, surface cracking and higher tackiness as well as slight colour variation can occur.</p> <p>The compatibility must be tested according to DIN 52 452-4.</p> <p>Colour deviations may occur due to exposure to chemicals, high temperatures, UV-radiation. However a change in colour will not adversely influence the technical performance or the durability of the product.</p> <p>For correct curing of the sealant sufficient relative humidity is necessary.</p> <p>Before using on natural stone contact our Technical Department.</p> <p>Do not use Sikaflex® AT-Connection 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® AT-Connection to seal swimming pools.</p> <p>Not suitable for joints under water pressure or permanent water immersion.</p>						

**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 should 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.



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