

Product Data Sheet
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SikaBond® AT-Universal

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Multipurpose adhesive for elastic bonding

Product Description

SikaBond® AT-Universal is a one part, solvent-free, elastic adhesive. SikaBond® AT-Universal is based on Silane Terminated Polymers and has very good adhesion on both non-porous and porous substrates.

Uses

SikaBond® AT-Universal is a multipurpose adhesive for the bonding of solid or engineered wood flooring, internal and external bonding of cable channels, acoustic tiles, and door sills, lightweight construction materials, sealing and bonding of roof and wall coverings and cover plates etc.

SikaBond® AT-Universal has strong adhesion on most common building substrates including hard PVC, GFRP, wood, ceramics, tiles, bricks, concrete, cement screed, aluminium, stainless steel etc.

Due to its excellent properties SikaBond® AT-Universal can also be used as a high modulus sealant e.g. for floor and connection joints.

Characteristics / Advantages

- 1-part, ready to use
- High adhesive strength without priming to many substrates
- Excellent workability
- Short cut off string
- Good initial tack and fast curing
- Compensation of substrate unevenness
- Non-corrosive
- Good weathering and water resistance
- Silicone free
- Over paintable*
- Solvent free

(*See notes of application)

Tests

Approval / Standard

ISO 11600 F 20% HM SKZ Würzburg.
Conforms to the requirements of ISEGA Certificate for foodstuff.

Product Data

Form

Colours

White, dark-grey

Packaging

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



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.
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Technical Data

Chemical Base	1-part Silane Terminated Polymers (PU-Hybrid technology, moisture curing)
Density	~ 1.4 kg/l (According to DIN 53 479)
Skinning Time	~ 35 minutes (+23°C / 50% r. h.)
Curing Rate	~ 3 mm / 24h (+23°C / 50% r. h.)
Movement Capability	20% HM (for sealing)
Sag Flow	0 mm , very good (DIN EN ISO 7390)
Service Temperature	-40°C to +80°C

Mechanical / Physical Properties

Shear Strength	~ 1.0 N/mm ² ; 1 mm adhesive thickness (+23°C / 50% r.h.) (DIN 5 2 283)
Tensile Strength	~ 1.5 N/mm ² (+23°C / 50% r. h.) (DIN 53 504)
Tear Strength	~ 5 N/mm (+23°C / 50% r. h.) (DIN 53 515)
Shore A Hardness	~ 33 (after 28 days) (DIN 53 505)
E-Modulus	0.6 N/mm ² at 100% elongation (+23°C / 50% r. h.) (DIN EN ISO 8340)
Elongation at Break	~ 400% (+23°C / 50% r. h.) (DIN 53 504)
Elastic Recovery	> 70% (+23°C / 50% r. h.) (DIN EN ISO 7389 B)

Resistance

Chemical Resistance	<p>Resistant to water, seawater, diluted alkalis, cement grout and water dispersed detergents.</p> <p>Not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated and aromatic hydro-carbons.</p> <p>Not or only short-term resistant to concentrated mineral acids, organic solvents (ketones, esters, aromatics) and alcohol, lacquer and paint thinners, organic acids and caustic solutions or solvents.</p> <p>For detailed information contact our Technical Service Department.</p>
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System Information

Application Details

Consumption	<i>Beaded / Cordon application in Bonding:</i> ~ 44 ml per running meter (with triangular nozzle)
Substrate Quality	Clean and dry, homogeneous, free from oils and grease, dust and loose or friable particles. Cement laitance, poorly adhering particles and incompatible paints must be removed.

Substrate Preparation / Priming	<p>SikaBond AT-Universal generally has strong adhesion to most clean, dry, 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>Non porous substrate (e.g. metals, plastics, aluminium, polymers, etc.) have to be cleaned with a fine abrasive pad and SikaCleaner-205 by using a clean towel / cloth. 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>For frequent water contact or constant high relative air humidity use Sika® Primer-3 N for porous substrates (concrete, brick, etc.)</p> <p>When used in conjunction with wood flooring, ensure substrate has a maximum moisture content < 2%CM (carbide method). If required apply a liquid damp proof membrane such as SikaBond Rapid DPM or Sika Primer MB</p> <p>For detailed instructions consult the Product Data Sheet for SikaBond primers and damp proof membranes or contact our Technical Service Department.</p>
Application Conditions / Limitations	
Substrate Temperature	During application and until SikaBond® AT-Universal has fully cured the substrate temperature must be +5°C min. and +40°C max.
Ambient Temperature	+5°C min. / +40°C max.
Substrate Humidity	Dry
Relative Air Humidity	Between 30% and 90%
Application Instructions	
Application Method / Tools	<p>Sikaflex® AT-Universal is supplied ready to use.</p> <p>Wood floor Bonding - After correct substrate preparation, gun apply SikaBond®-AT-Universal in parallel beads at right angles to the direction of the wood flooring using a triangular pre-cut nozzle at centre's not greater than 250mm.</p> <p>General bonding - After correct substrate preparation apply strips or spots on the bonding surface at intervals of a few centimeters. Use hand pressure to set the element to be bonded into position. If necessary, use SikaTack-Panel fixing tape for the initial hours of curing. An incorrectly positioned element can be easily unfastened and repositioned in the first few minutes after application.</p> <p>Optimum bonding will be obtained after complete curing of SikaBond®AT-Universal.</p>
Cleaning of Tools	Clean all tools and application equipment with Sika® Remover-208 immediately after use. Hardened / cured material can only be removed mechanically.
Notes on Application / Limitations	<p>For best workability the adhesive temperature should be > 15°C.</p> <p>For the correct curing of the adhesive sufficient relative humidity is necessary. Elastic sealants / adhesives should not generally be over painted.</p> <p>If there is over painting of the sealant, surface cracking and higher tackiness as well as slight colour variations can occur.</p> <p>The compatibility must be tested according to DIN 52 452-4.</p> <p>Colour variations in the adhesive may occur due to exposure to chemicals, high temperatures, UV-radiation. However a change in colour will not adversely influence the technical performance or durability of the product.</p> <p>Before using on natural stone contact our technical service department.</p> <p>Do not use Sikaflex AT-Universal without priming on copper, titan-zinc, brass. Do not use it as a glass sealer, on bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticizers or solvents which could attack the sealant.</p> <p>Do not use on PE, PP, Teflon and certain plasticized synthetic materials (carry out pre-trials or contact our Technical Service Department).</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 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.



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