

Product Data Sheet
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SikaBond® AT-Metal

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Special adhesive for the elastic bonding of metals

Product Description

SikaBond® AT-Metal is a one part, solvent-free, elastic adhesive and sealant for porous and non-porous substrates, particularly for metals. SikaBond® AT-Metal is based on Silane Terminated Polymers.

Uses

- SikaBond® AT-Metal is an adhesive for both internal and external sealing and bonding of metal façade- and roof elements, roof coverings, cover plates, metal sheets, seam sealing, sky lights, sealing of metal cladding etc.
- SikaBond® AT-Metal has strong adhesion on non-porous substrates, especially on metals (aluminium, copper, galvanized steel, stainless steel, etc), and many plastics (PVC, powder coatings, etc.)

Characteristics / Advantages

- 1-part, ready to use
- Very good adhesion without priming on many metals and non porous substrates
- Good adhesion on porous substrates (i.e. concrete, roof tiles, mortar etc.)
- Excellent workability
- Short cut off string
- Good initial tack and fast curing
- Non-corrosive
- Good weathering and water resistance
- Silicone free
- Solvent free

Tests

Approval / Standard ISO 11600 F 20% HM SKZ Würzburg

Product Data

Form

Colours Copper, Light-grey

Packaging 300 ml cartridges (12 cartridges 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

Chemical Base 1-part Silane Terminated Polymers (PU-Hybrid technology, moisture curing)

Construction



Density	~ 1.35 kg/l	(DIN 53 479)
Skinning Time	~ 30 minutes (+23 °C / 50% r. h.)	
Curing Rate	~ 3 mm / 24h (+23 °C / 50% r. h.)	
Joint Dimensions	10 mm min. width 35 mm max. width	
Sag Flow	0 mm , very good	(DIN EN ISO 7390)
Service Temperature	-40 °C to +90 °C	

Mechanical / Physical Properties

Shear Strength	~ 1.15 N/mm ² ; 1 mm adhesive thickness (+23 °C / 50% r.h.)	(DIN 52 283)
Tensile Strength	~ 1.6 N/mm ² (+23 °C / 50% r. h.)	(DIN 53 504)
Tear Strength	~ 5.5 N/mm ² (+23 °C / 50% r. h.)	(DIN 53 515)
Shore A Hardness	~ 38 (after 28 days)	(DIN 53 505)
E-Modulus	0.7 N/mm ² at 100% elongation (+23 °C / 50% r. h.)	(DIN EN ISO 8340)
Elongation at Break	~ 420% (+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 (kelones, esters, aromatics) and alcohol, lacquer and paint thinners, organic acids and caustic solutions or solvents.</p> <p>For detailed information contact our Technical Department.</p>
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System Information

Application Details

Consumption	<p><i>Beaded / Cordon application for Bonding:</i></p> <p>~ 44 ml per running meter (with triangular nozzle)</p>
Substrate Quality	<p>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.</p> <p>Standard construction rules must be observed.</p>
Substrate Preparation / Priming	<p>SikaBond® AT-Metal 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></p> <p>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. Before sealing allow a flash off time of at least 15 min. - max 6 hrs.</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>For detailed instructions consult the Product Data Sheet for SikaBond primers or contact our Technical Department.</p> <p>Standard construction rules must be observed.</p>

Application Conditions / Limitations

Substrate Temperature During application and until SikaBond® AT-Metal 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 Sikaflex® AT-Metal is supplied ready to use.

After substrate preparation apply Sikaflex®-AT-Metal in beads, strips or spots on the bonding surface at intervals of a few centimetres. Use hand pressure only 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 easily be unfastened and repositioned during the first few minutes after application.

Optimum bond will be obtained after complete curing of Sikaflex® AT-Metal.

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 SikaBond® AT-Metal is not to be used for Façade panel bonding. For façade panels use the SikaTack-Panel System.

For best workability the adhesive temperature should be > 15°C.

Do not use SikaBond AT-Metal as a glass sealer, on titan zinc, bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticizers or solvents which could attack the sealant.

Before using on natural stone contact our Technical Department.

For the correct curing of the adhesive sufficient relative humidity is necessary.

Elastic adhesives should not generally be over painted.

If there is over painting of the adhesive, surface cracking and higher tackiness plus slight colour variations can occur.

The compatibility must be tested according to DIN 52 452-4.

Colour variations 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.

Do not use on PE, PP, Teflon and some plasticized synthetic materials (carry out pre-trials or contact our Technical Department).

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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