

Product Data Sheet
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SikaBond® AT Metal

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Special adhesive for the elastic bonding of metals

Product Description / Uses	SikaBond® AT Metal is a one part, solvent-free, elastic adhesive for porous and non-porous substrates, particularly for metals and for the following applications: ■ internal and external bonding of metal façade- and roof elements, roof coverings, cover plates, metal sheets, sky lights, bonding of metal cladding etc.
Characteristics / Advantages	■ 1-part, ready to use ■ Very good adhesion without priming on many metals and non-porous substrates i.e. copper ■ 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
Product Data	
Colours	Copper, Light-grey
Packaging	300 ml cartridges (12 cartridges per box, 1344 cartridges per pallet)
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-part Silane Terminated Polymers (PU-Hybrid technology, moisture curing)	
Density	1.35 kg/l approx.	(ISO 1183-1)
Skinning Time	30 minutes approx. ¹	
Curing Rate	3 mm / 24h approx. ¹	
Sag Flow	0 mm , very good	(ISO 7390)
Service Temperature	-40°C to +90°C	
Lap Shear Strength	1.15 N/mm ² approx. ¹ ; 1 mm adhesive thickness	(DIN 52 283)
Tensile Strength	1.6 N/mm ² approx. ¹	(ISO 37)
Tear Propagation Strength	5.5 N/mm ² approx. ¹	(ISO 34)
Shore A Hardness	38 approx. ¹ (after 28 days)	(ISO 868)
E-Modulus	0.7 N/mm ² approx. ¹ at 100% elongation after 28 days	(ISO 8340)
Elongation at Break	400% approx. ¹	(ISO 37)
Elastic Recovery	70% approx. ¹ after 28 days	(ISO 7389 B)

Resistance

Chemical Resistance

Resistant to water, seawater, diluted alkalis, cement grout and water dispersed detergents.

Not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated and aromatic hydro-carbons

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.

For detailed information contact our Technical Service.

System Information

Application Details

Consumption

Beaded / Cordon application for Bonding:
44 ml approx.¹ 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.

Standard construction rules must be observed.

¹ 23°C / 50% r.h.

Substrate Preparation / Priming	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. <u>Non-porous substrates</u> Non-porous substrates such as metals, powder coatings, etc. have to be treated with an abrasive pad very fine and Sika® Aktivator-205 using a clean towel. Before bonding allow a flash-off time of at least 15 min. For titan-zinc and copper use Sika® Aktivator-205 and Sika® Primer-3N as an adhesion promoter. For frequent water contact or constant high relative air humidity use Sika® Primer-3 N for porous substrates (concrete, brick, etc.). Primers improve long term performance of a bonding connection. For further information please refer to the Sika® Pre-treatment table.
Application Conditions / Limitations	
Substrate Temperature	During application and until SikaBond® AT Metal has fully cured the substrate temperature must be +5°C to +40°C.
Ambient Temperature	+5°C min. to +40°C max.
Relative Air Humidity	Between 30% and 90%
Application Instructions	
Application Method / Tools	SikaBond® AT Metal is supplied ready to use. After substrate preparation apply SikaBond® 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 Tape for the initial hours of curing. An incorrectly positioned element can easily be unfastened and repositioned during the first few minutes after application.
Cleaning of Tools	Clean all tools and application equipment with Sika® Remover-208 immediately after use. Hardened / cured material can only be removed mechanically.
Further Documents available	■ Pre-treatment Chart Sealing & Bonding ■ Material Safety Data Sheet (MSDS)
Notes on Application / Limitations	SikaBond® AT Metal may not be used for Façade panel bonding. For facade 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, bituminous substrates, natural rubber, EPDM rubber or on building materials which might bleed oils, plasticizers or solvents which could attack the adhesive. Before using on natural stone contact our technical service. For the correct curing of the adhesive sufficient relative humidity is necessary. SikaBond® AT Metal can be over-painted with most conventional paint systems. The paint must be tested for compatibility by carrying out preliminary trials and the best results are obtained if the adhesive is allowed to cure fully first. Please note that non-flexible paint systems may impair the elasticity of the adhesive and lead to cracking of the paint film. 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.

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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