

# PRODUCT DATA SHEET

## SikaBond® AT Metal

### SPECIAL ADHESIVE FOR THE ELASTIC BONDING OF METALS

#### DESCRIPTION

SikaBond® AT Metal is a 1-component, solvent-free, non-corrosive adhesive for metal bonding.

#### USES

SikaBond® AT Metal is designed for the internal and external bonding of metal facade and roof elements, roof coverings, cover plates, metal sheets, sky lights and metal cladding.

#### CHARACTERISTICS / ADVANTAGES

- Silicone-free
- Non-corrosive
- Very good workability
- Short cut off string
- Good initial tack and fast curing
- Good adhesion on porous substrates
- Good weathering and water resistance
- Very high adhesive strength without priming on many metals and non-porous substrates

#### APPROVALS / STANDARDS

- ISO 11600 F 20 HM

#### PRODUCT INFORMATION

<b>Chemical base</b>	Silane terminated polymer		
<b>Packaging</b>	300 mL cartridge, 12 cartridges per box		
<b>Colour</b>	Copper, light-grey		
<b>Shelf life</b>	SikaBond® AT Metal has a shelf life of 12 months from the date of production, if it is stored properly in undamaged, original, sealed packaging, and if the storage conditions are met.		
<b>Storage conditions</b>	SikaBond® AT Metal shall be stored in dry conditions, protected from direct sunlight and at temperatures between +5 °C and +25 °C.		
<b>Density</b>	~1.35 kg/L		(ISO 1183-1)

#### TECHNICAL INFORMATION

<b>Shore A Hardness</b>	After 28 days	~38	(ISO 868)
<b>Tensile Strength</b>	~1.6 N/mm <sup>2</sup>		(ISO 37)
<b>Secant Tensile Modulus</b>	After 28 days (at +23 °C) (100 % elongation)	~0.70 N/mm <sup>2</sup>	(ISO 8339)
<b>Elongation at Break</b>	~400 %		(ISO 37)

<b>Elastic Recovery</b>	After 28 days	~70 %	(ISO 7389)
<b>Lap Shear Strength</b>	~1.15 N/mm <sup>2</sup> , 1 mm adhesive thickness		(EN 1465)
<b>Tear Propagation Resistance</b>	~5.5 N/mm		(ISO 34)
<b>CHEMICAL RESISTANCE</b>	<p>SikaBond® AT Metal is resistant to water, seawater, diluted alkalis, cement slurry and water dispersed detergent.</p> <p>SikaBond® AT Metal is not resistant to alcohols, organic acids, concentrated alkalis and concentrated acids, chlorinated and aromatic hydro-carbons.</p> <p>SikaBond® AT Metal is not or is only temporarily 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 please contact our Technical Service Department.</p>		
<b>Service temperature</b>	-40 °C to +90 °C		

## APPLICATION INFORMATION

<b>Consumption</b>	Beaded / Cordon application: 44 ml approx. per linear meter (with triangular nozzle)		
<b>Sag Flow</b>	0 mm (20 mm profile, 23 °C)		(ISO 7390)
<b>Ambient Air Temperature</b>	+5 °C to +40 °C, min. 3 °C above dew point temperature		
<b>Relative Air Humidity</b>	30% to 90%		
<b>Substrate Temperature</b>	+5 °C to +40 °C		
<b>Curing Rate</b>	at +23 °C / 50 % r.h.	~3 mm/24 h	(CQP 049-2)
<b>Skin time</b>	30 minutes approx. (23 °C / 50% r.h.)		(CQP 019-1)

## APPLICATION INSTRUCTIONS

For the application of SikaBond® AT Metal all standard construction guidelines apply.

### SUBSTRATE PREPARATION

The substrate must be clean, dry, sound and homogeneous, free from oils, grease, dust and loose or friable particles. Paint, cement laitance and other poorly adhering contaminants must be removed. SikaBond® AT Metal adheres without primers and/or activators. However, for optimum adhesion and critical, high performance applications, such as on multi-story buildings, highly stressed joints, extreme weather exposure or water immersion, the following priming and/or pre-treatment procedures shall be followed:

#### Non-porous substrates

Glazed tiles, powder coated metals, aluminium, anodised aluminium, stainless steel and galvanised steel have to be treated with a very fine abrasive pad and Sika® Aktivator-205 shall be applied using a clean towel. Before sealing allow a flash-off time of > 15 minutes (< 6 hours).

For frequent water contact or constant high relative air humidity use Sika® Primer-3 N for porous substrates (concrete, brick, etc.).

For titan-zinc and copper, use Sika® Aktivator-205 and Sika® Primer-3 N as adhesion promoters.

For detailed advice, please contact our Technical Service Department.

Note: Primers are adhesion promoters. They are neither a substitute for the correct cleaning of a surface, nor do they improve the strength of the surface significantly.

### APPLICATION METHOD / TOOLS

SikaBond® AT Metal is supplied ready to use. After the necessary substrate preparation, insert a foil pack or cartridge into the sealant gun and extrude SikaBond® AT Metal into the joint making sure that it comes into full contact with the sides of the joint and avoids any air entrapment. Apply SikaBond® AT Metal in beads, strips or spots to the bonding surface in intervals of a few centimetres each.

Use hand pressure only to set the element to be bonded into position. If necessary, use adhesive tapes, wedges, or props to hold the assembled elements together during the initial curing hours. An incorrectly positioned element can easily be unfastened and repositioned during the first few minutes after application.

Optimum bonding will be obtained after the complete curing of SikaBond® AT Metal.

### CLEANING OF TOOLS

Clean all tools and application equipment immediately after use with Sika® Remover-208 and/or Sika® Top-Clean T. Once cured, residual material can only be removed mechanically.

## FURTHER DOCUMENTS

- Safety Data Sheet
- Pre-treatment Chart Sealing and Bonding

## LIMITATIONS

- Do not use SikaBond® AT Metal for facade panel bonding. For facade panels use the SikaTack® Panel System.
- For optimal workability, the adhesive temperature shall be > 15 °C.
- For correct curing of the adhesive, sufficient relative humidity is necessary.
- SikaBond® AT Metal can be overpainted with most conventional facade coating paint systems. However, paints must first be tested to ensure compatibility by carrying out preliminary trials (e.g. according to ISO technical paper: Paintability and Paint Compatibility of Sealants). The best overpainting results are obtained when the sealant is allowed to fully cure first. Note: non-flexible paint systems may impair the elasticity of the sealant and lead to cracking of the paint film.
- Colour variations may occur due to exposure to chemicals, high temperatures and/or UV-radiation. However, a change in colour is purely of aesthetic nature and does not adversely influence the technical performance or durability of the product.
- Before using SikaBond® AT Metal on natural stone, please refer to our Technical Service Department for advice.
- Do not use SikaBond® AT Metal as a glass sealer, on bituminous substrates, natural rubber, EPDM rubber or on any building materials which might bleed oils, plasticizers or solvents that could attack the sealant.
- Do not use SikaBond® AT Metal to seal joints in and around swimming pools.
- Do not use SikaBond® AT Metal for joints under water pressure or for permanent water immersion.
- Do not use on polyethylene (PE), polypropylene (PP), polytetrafluoroethylene (PTFE / Teflon), and other similar plasticized synthetic materials, SikaBond® AT Metal is only to be used with the written agreement of our Technical Service Department.
- Do not expose uncured SikaBond® AT Metal to alcohol containing products as this may interfere with the curing reaction.

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## BASIS OF PRODUCT DATA

All technical data stated in this 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 declared data and recommended uses for this product may vary from country to country. Please consult the local Product Data Sheet for the exact product data and uses.

## ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) 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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