

PRODUCT DATA SHEET

SikaBond® TF Plus R

Adhesive for SikaMembran® System used for sustainable building certifications

TYPICAL PRODUCT DATA (FURTHER VALUES SEE SAFETY DATA SHEET)

Chemical base	1-component polyurethane
Color (CQP001-1)	Black
Cure mechanism	Moisture-curing
Density (uncured)	1.3 kg/l
Non-sag properties (CQP061-1)	Good
Application temperature	ambient, substrate 5 – 40 °C
Skin time (CQP019-1)	190 minutes ^A
Shore A hardness (CQP023-1 / ISO 48-4)	30 ^B
Tensile strength (CQP036-1 / ISO 527)	1.5 N/mm ²
Peel resistance (CQP564-1)	1 N/mm
Elongation at break (CQP036-1 / ISO 527)	650 %
Service temperature (CQP509-1 / CQP513-1)	-40 – 90 °C
Shelf life	12 months ^C

CQP = Corporate Quality Procedure

^{A)} 23 °C / 50 % r. h.^{B)} 14 days at 23 °C / 50 % r. h.^{C)} storage below 25 °C
DESCRIPTION

SikaBond® TF Plus R is the VOC-reduced version of the long lasting proven adhesive SikaBond® TF Plus N ("R" represents reduced). Especially suitable for sustainable building certifications, as e.g. DGNB or LEED.

SikaBond® TF Plus R is a 1-component, PU-based adhesive for the SikaMembran® System, which combines high mechanical strength with the necessary elasticity to cope with high movements in facades. SikaBond® TF Plus R adheres very good to a wide range of substrates which ensures a durable sealing.

PRODUCT BENEFITS

- EMICODE EC1PLUS , very low emission
- DGNB 2018: Quality Level 4, Product Group 13
- LEED v4.1: VOC Attestation Émissions dans l'air intérieur, Class A+, very low emission
- Very good adhesion to concrete, aluminium, powder coatings, rigid PVC, wood and many other materials commonly used in construction
- One-sided adhesive application
- Ensures levelling of uneven substrates
- Adjustment of membrane possible until 30 minutes after installation
- Secure application with good sag resistance
- No contact pressure necessary
- Fast curing

AREAS OF APPLICATION

SikaBond® TF Plus R is used for bonding SikaMembran® facade membranes (e.g. SikaMembran® Universal, Outdoor, Outdoor plus, Strong, Eco Uni, Eco Out) behind curtain walling and rainscreen cladding. SikaBond® TF Plus R is also suitable to bond over plasterable membranes (e.g. SikaMembran® Uni-P, Outdoor-P) to concrete and brick wall in window installation.

SikaBond® TF Plus R bonds well to concrete, aluminium (anodized or powder-coated), rigid U-PVC, timber and other standard construction materials, also without using a primer. Application of adhesive to one side only (mostly to substrate) is sufficient.

This product is suitable for experienced professional users only. Test with actual substrates and conditions have to be performed to ensure adhesion and material compatibility.

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CURE MECHANISM

SikaBond® TF Plus R cures by reaction with atmospheric moisture. At low temperatures the water content of the air is generally lower and the curing reaction proceeds somewhat slower.

CHEMICAL RESISTANCE

Resistant to water, seawater, cement grout and water-dispersed detergents.

METHOD OF APPLICATION

Surface preparation

The substrate must be sound, homogeneous and no paint or other coatings must be present. It needs to be clean, dry and free from oils, grease, dust and loose or friable particles.

Surface treatment depends on the specific nature of the substrates and is important for a long lasting bond.

Treat non-porous surfaces with Sika® Aktivator-205. Clean porous surfaces by wire brush and / or vacuum cleaner. On porous substrates exposed frequently to water use Sika® Primer-210 or Sika® Primer-3 N. Consider that these suggestions are based on experience and have in any case to be verified by tests on original substrates.

Structured and metallic powder coatings has to be grinded with abrasive pad -very fine- and treated with Sika® Aktivator-205.

Application

SikaBond® TF Plus R can be processed between 5 °C and 40 °C but changes in reactivity and application properties have to be considered. The optimum temperature for substrate and adhesive is between 15 °C and 25 °C. Until the adhesive is fully cured the substrate temperature must be in between 5 °C and 40 °C.

To avoid condensation on the surfaces, the temperature of the bonding substrates must be at least 3 °C higher than the dew point of the air.

The skin time is significantly shorter in hot and humid climate. The SikaMembran® sheet must always be installed within half of the skin time. Never join bonding parts if the adhesive has built a skin.

SikaBond® TF Plus R can be processed with manual, pneumatic or electric driven piston guns.

For detailed information about the application of SikaMembran® sheets consult Product Data Sheet "SikaMembran System".

Tooling and finishing

Tooling and application of SikaMembran® sheet must be carried out within the skin time of the adhesive.

For detailed information about the application of SikaMembran® sheets consult Product Data Sheet "SikaMembran System".

Removal

Uncured SikaBond® TF Plus R can be removed from tools and equipment with Sika® Remover-208 or another suitable solvent. Once cured, the material can only be removed mechanically.

Hands and exposed skin have to be washed immediately using hand wipes such as Sika® PowerClean wipes or a suitable industrial hand cleaner and water.

Do not use solvents on skin.

Application limits

Where two or more different reactive process materials are used, allow the first to cure completely before applying the next.

The compatibility of gaskets, backer rods, and other accessory materials with SikaBond® TF Plus R must be tested in advance.

Do not use SikaBond® TF Plus R on natural stone or as a glazing sealant.

Do not use on PTFE (Teflon), Polyethylene (PE), Polypropylene (PP), Polystyrene (PS) and bituminous substrates, natural rubber, EPDM rubber from other producers or on any building materials which might leach oils, plasticisers or solvents that could degrade the product.

Do not mix with or expose uncured SikaBond® TF Plus R to substances that may react with isocyanates, especially alcohols which are often components within e.g. thinners, solvents, cleaning agents and formwork releasing compounds. Such contact could interfere or prevent the cross linking curing reaction of the material.

In the case of the plasterable SikaMembrane foil-variants, there should be as little excess adhesive on the substrate outside of the foil area, as adhesive protrusions are difficult to plaster over. If excess adhesive cannot be prevented, the surfaces should be masked with masking tape.

FURTHER INFORMATION

The information herein is offered for general guidance only. Advice on specific applications is available on request from the Technical Department of Sika Industry.

Copies of the following publications are available on request:

- Safety Data Sheets
- System Data Sheet "SikaMembran System"
- Sika-Sustainability Data Sheet SikaBond® TF Plus R

PACKAGING INFORMATION

Unipack	600 ml (770 g) 20 Unipacks per box
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BASIS OF PRODUCT DATA

All technical data stated in this document are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

HEALTH AND SAFETY INFORMATION

For information and advice regarding transportation, handling, storage and disposal of chemical products, users shall refer to the actual Safety Data Sheets containing physical, ecological, toxicological and other safety-related data.

Regulation (EC) No 1907/2006 (REACH) - Mandatory training

As from 24 August 2023 adequate training is required before industrial or professional use of this product. For more information and a link to the training visit:

www.sika.com/pu-training

DISCLAIMER

The information, and, in particular, the recommendations relating to the application and enduse 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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Sika Deutschland GmbH

Industry
Stuttgarter Straße 139
72574 Bad Urach
Tel. +49 7125 940-7692
verkauf.industry@de.sika.com
www.sika.de

