



### Product Verification

### Sustainability

according to BNB BN 2015 according to BREEAM International New Construction 2016 DGNB NBV 2015 according DGNB Gebäude Neubau 2018 according according LEED Building Design and Construction V3 to according to LEED Building Design and Construction (2015)V 4

### Certification:

Winflex® TFS has been distinguished with Emicode-Seal EC1 PlusR for very low emission products.

The emission behaviour of Winflex® TFS has been tested independently by the institute for analytic Aurachtal. Winflex® TFS has been proved and tested to be very low-emission and particularly does not contain any halogenated flame retardant substances.

Winflex® TFS is free of solvent, isocyanate, silicon and PCP and exhibits an extremely low shrinkage.





Winflex® TFS is by MPA NRW tested quality with a well defined water vapour diffusion value (µ-value) and is therefore especially suited as adhesive and seam paste to seal window and door joints guickly and safely with our window sealing strips in compliance with recommendations of the guidelines of the German RAL quality assurance association for windows and doors and in compliance with DIN 4108, part 7. Winflex® TFS is paint compatible in compliance with DIN 52 452,

part 4. However, because of the large number of paint colours own tests should be carried out.

# Technical Information Winflex® TFS



Winflex® TFS is suitable for the elastic bonding of Winflex® internal / external and Winflex® Vario in internal and external areas.

- for the bonding of our window jointing strips Winflex® internal / external and Winflex® Vario, type A in reveals
- as seam paste for all our window jointing strips
- for the bonding of rebates, mitres and overlaps
- for bonding of construction components made from plaster, natural stone, aluminium, steel, zinc, copper, glass, wood, MDF, tiles, ceramic among each other or on solid mineral subsurfaces.

Winflex® TFS is a flexible, single-component adhesive. Winflex® TFS is resistant to overnight condensation and cures with atmospheric moisture to a flexible, rubbery plastic. This has excellent weather and chemical resistance.

### Winflex® TFS offers the following advantages:

- very rapid and secure working
- is free of solvent and neutral in odour
- resistant to overnight condensation
- offers a wide spectrum of adhesion to concrete, aluminium blank and powder coated, unplastisised PVC, wood as well as many other normal building materials
- good adhesion force also on many solvent sensitive subsurfaces as polystyrene foams, e. g. XPS and EPS
- processing possible from 5 °C on under destined conditions
- single-sided adhesive application
- no pre-treatment of the membrane
- no flash time, no additional risk of contamination

- self-levelling, unproblematic application to uneven foundations (cavities in concrete)
- adjustment possibilities for laminate up to 30 minutes after adhesion
- possesses excellent weather, UV and chemical resistance
- harmonised to building conditions
- long-lasting adhesion and sealing
- causes no blister formation
- has low shrinkage
- is elastic

### Technical data:

Basis silane terminated polymer, neutral cross-linking

Colour white

Curing system atmospheric humidity

Transfer rate > 100 g / min DIN 52 456 – 6 mm Spec. weight approx. 1.5 g / cm³ DIN 52 451 – PY Skin formation time approx. 1 h  $+ 23^{\circ}\text{C} / 50 \% \text{ r. h.}$  Curing approx. 2 mm / 24 h  $+ 23^{\circ}\text{C} / 50 \% \text{ r. h.}$  Volume change < -3% DIN 52 451 – PY

Stress-strain value at 100 % approx. 0.4 N / mm<sup>2</sup> DIN 52 455 NWT – 1 - A2 – 100

Tensile strength (film) approx. 1.0 N / mm<sup>2</sup> DIN 53 504

Shore A hardness approx. 25 DIN 53 505, 4 weeks + 23°C / 50 % r. h.

Permissible net deformation 25 %

Water vapour diffusion resistance value  $\mu$  = 1390 in compliance with DIN EN ISO 12 572, according to DIN EN ISO 1279, part 4

Temperature resistance - 40 °C to + 80 °C

Processing temperature + 5 °C to + 40 °C (building element temperature)

from - 5 °C building element temperature

under destined conditions

Delivery form 600 ml tubular bag, 20 tubular bags / cardboard box

### Storage:

Store in unopened original packing, cool and dry between + 5 °C and + 25 °C.

Can be stored at least 9 months from date of producing on in unopened original packing.

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### **Processing notes:**

### Planning:

Material consumption: depending on foundation about 10 m per 600 ml tubular bag, nozzle diameter 8 mm. At 1mm layer thickness of the adhesive the consumption is approx. 1 l / m², i.e. a 600 ml tubular bag suffices for approx. 0.6 m² adhesion layer. The sealing of window joints has to be designed, in order to enable a drying up of the joint Therefore either the internal seal must be more vapour diffusion tight than the outer seal. Then Winflex® external (white) must be used for the outer seal and Winflex® internal (red) for the inner seal. Or tapes with variable vapour diffusion are used, as Winflex® Vario for inner and outer seal. Care must be taken during sealing that the joint space is well insulated with suitable material (polyurethane foam or other) to avoid heat bridges and undershooting the dew point on the inside. Therefor our Winflex® TriSave and Winflex® TriSave eco climate tapes are very useful, which are able to fulfil the requirements of outer seal, thermal and sound insulation and inner seal in one product.

### Preparation of the adhesion surface:

The adhesion surfaces must be firm, load-bearing, clean and free of grease, oil and dust. Any release agent present must be removed. All foundation materials must be compatible with Winflex® TFS within the context of DIN 52 452, part 1. Adhesion and compatibility with plastics should be object-related tested. In the use on coated foundations (e.g. facades made hydrophobic) a pre-test for compatibility is necessary. Thus with, for example, acrylic coating materials a loss of adhesion is possible through plasticiser migration.

#### Procedure:

In case of processing temperatures (building element temperatures) from + 5 °C to + 40 °C, the foundations may be slightly damp but visible or standing water is definitely to be avoided. In case of processing temperatures (building element temperatures) from - 5 °C to + 5 °C, water and moisture in every possible form, especially also as ice or frost, is to be avoided. The temperature (building element temperature) must not fall below - 5 °C. At temperatures of below + 5 °C, curing time of Fasatan TFS may increase gravely, depending on humidity.

Depending on the material and surface properties priming of the foundation is recommended. Depending upon the working conditions and foundation our products Fasatan® TFK, a mixture of Fasatan® TFK and Fasatan® cleaner / thinner in a ratio of 1:1 or our Multi Primer can be used. This must be tested in each individual case.

**Tools:** The following tools are sufficient for secure and unproblematic mounting: cartridge gun, protective gloves, carpet knife, large and small spatulas and plastic roller.

**Mounting:** Apply Winflex® TFS with the cartridge gun and nozzle onto the foundation in a continuous bead (nozzle diameter at least 8 mm). Spread the bead with a spatula.

Attach Winflex® in a loop. Lay the laminate onto the fresh adhesive bed and apply an even pressure (e.g. with a pressure roller). After attachment of the laminate the adhesive joint should be at least 1 mm and fully filled with adhesive without air bubbles. Open containers should be used as soon as possible.

### Cleaning:

Contamination with non-cured adhesive can be removed with Fasatan® cleaner / thinner. Fasatan® cleaner / thinner can also be used to degrease the adhesion surface – test compatibility!

Whenever working is done with Fasatan® cleaner / thinner the compatibility has to be tested.

When set, Fasatan® TFS can only be removed mechanically.

Please obtain further information from our current safety data sheet.

#### Attention! Important Note:

Above information are based on best present knowledge of current technology, but do not guarantee faultless processing of our products. The information is based on practical results of our tests, but is not binding and does not constitute warranties of characteristics in terms of Federal Supreme Court jurisdiction. Our information does not constitute a legally binding assurance of certain properties or suitability for a specific purpose. Supplementary information by our specialists are merely recommendations, for which no liability is accepted.

Due to the many possible applications of our products, we recommend subjecting the project to a thorough suitability test on original materials before release for further application.

Since our information are non-binding we do not warranty their correctness. For this reason we accept no liability for possible improper processing based on information submitted by our employees.

This technical data sheet replaces all previous versions and is valid until a new version is issued, or until Dec. 31, 2022. Please request the latest version after Jan. 01, 2023.

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