

VOWA TFS is a single component, high grade, neutral, firm-elastic and hybrid polymer based construction adhesive for structural gluing. VOWA TFS is used especially for force-fit gluing of our Phonotherm® curtain wall installation system elements on structures.

### VOWA TFS offers you the following product properties:

- Excellent adhesion, generally without a primer, on virtually any substrates.
- Very good mechanical properties.
- Long open time.
- Permanent elastic after curing.
- Low emission – EC1 PLUS R certified.
- Very simple and reliable application even under difficult conditions.
- Cures without forming bubbles.
- Very good weathering and UV resistance.
- Free of solvents, isocyanate, halogen and acids.
- Good water and salt water resistance.

### Application:

Stress-free structural gluing and sealing between Phonotherm® curtain wall installation system elements and wood, limestone, brick, aerated concrete or concrete substrates.

### Technical data:

|                                       |  |                              |
|---------------------------------------|--|------------------------------|
| Base                                  | MS Polymer   |                              |
| Consistency                           | Firm, paste-like                                     |                              |
| Colour                                | grey / white   |                              |
| Curing system                         | ambient humidity                                     |                              |
| Skin formation time                   | ca. 20 min.  | + 20 °C / 65 % rel. humidity |
| Curing time                           | 3 to 4 mm / 24 hours                                 | + 20 °C / 65 % rel. humidity |
| Shore A Hardness                      | 60 ± 5   |                              |
| Density                               | 1.42 g / cm <sup>3</sup>                             |                              |
| Maximum permissible total deformation | ± 20 %   |                              |
| Tensile strength                      | > 2.70 N / mm <sup>2</sup>                           | DIN 53504                    |
| Young's modulus 100%                  | 1.5 N / mm <sup>2</sup>                              | DIN 53504                    |
| Ultimate elongation                   | > 350 %  | DIN 53504                    |
| Thermal stability                     | - 40 °C to + 90 °C                                   |                              |
| Application temperature               | + 5 °C to + 35 °C (structural component temperature) |                              |
| Forms of supply                       | 600 ml flow pack, 20 packs / carton                  |                              |

### Application notes:

#### Planning:

Material use for 600 ml flow packs with 8 mm diameter nozzle, approx. 10 m of 25 mm x 2 mm bead of adhesive, depending on substrate. VOWA TFS exhibits excellent adhesion on many substrates, generally without a primer.

#### Preparing the bonding surfaces:

The bonding surfaces must be firm, stable, clean, dry and free of grease, oil and dust. Any release agents and bitumen residues must be removed. Remove loose or weakly adhering particles such as plaster residue.

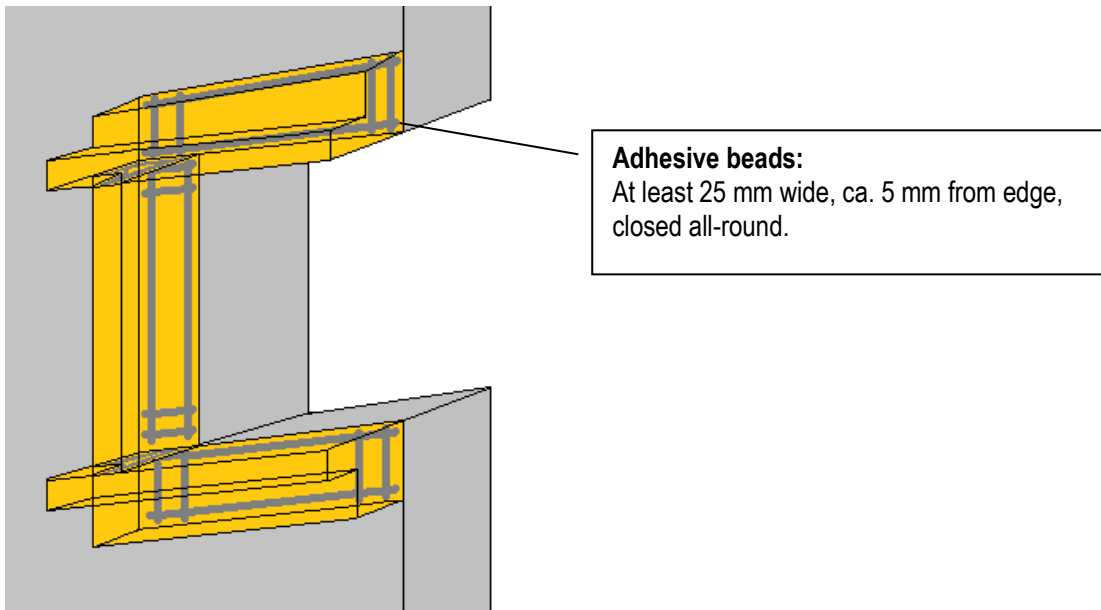
All substrate materials must be compatible with VOWA TFS pursuant to DIN 52 452, Part 1. Adhesion and compatibility with plastics should be tested on the specific material. Test compatibility on coated surfaces (e.g. water-repellent façades) before application. Loss of adhesion may, for instance, become a problem due to migration of softeners in acrylic coatings.

### Application:

The temperature must not be less than + 5 °C. On conventional stonework surfaces (concrete, porous concrete brickwork, and lime sand brickwork), priming of the surface is not necessary.

**Tools:** The following tools will be adequate for simple and reliable application: Flow pack hand pressure gun, protective gloves, carpet knife, large and small spatula, plastic roller.

**Installation:** Apply VOWA TFS in the form of 2 parallel beads to the curtain wall installation system elements using a flow pack gun and nozzle. Two adhesive beads are also required at the faces. At least 8 mm nozzle diameter; this will produce an area for adhesion of ca. 25 x 2 mm. Then use a spirit level to align the Phonotherm® curtain wall installation system elements in front of the embrasure opening and screw down.



Refer to the Phonotherm® curtain wall installation system Technical Data Sheet for application details.

### Cleaning:

Use Fasatan® Cleaner / Thinner to remove excess adhesive before it hardens. Fasatan® Cleaner / Thinner can also be used to degrease the adhesion surfaces – check for compatibility!

Once VOWA TFS has hardened, it can only be removed mechanically.

### Storage:

Store unopened original containers cool and dry between + 5°C and + 25°C.

Minimum shelf life in unopened original container: 9 months from date of manufacture.

Please refer to our current Safety Data Sheet for further information!

### 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, 2024. Please request the latest version after Jan. 01, 2025.

Dr. Hermann, Anwendungstechnik / Application Technology, Gingen / Fils