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## **Technical Data Sheet**

# ADF®-Systemkleber Hydrophobic special adhesive

Art.-No. 2 05956

#### **Properties:**

- Tested to DIN EN 12004, C1TE
- Water repellent
- Easy to use
- Good slump resistance
- Polymer modified
- For interior and exterior

#### Areas of application:

ADF-Systemkleber is used for bonding SANIFIN, ADF-Balkonfolie, and the ASO-Joint-Tapes within a system on to cementitious substrates such as concrete, render, plaster, brickwork etc.

ADF-Systemkleber is suitable as a thin bed adhesive for fixing earthenware and vitrified tiles, ceramic with low water absorption <0.5% (fully vitrified), split tiles, mosaics and natural stone sensitive to discolouration, on to SANIFIN and ADF-Balkonfolie. Furthermore ADF-Systemkleber is suitable for secure installation on to all substrates in accordance with DIN 18 157, part 1 e.g. concrete, aerated concrete, render, heated and standard cement-based and calcium sulphate screeds, plasterboard etc.

#### **Technical Data:**

Base: Sand, cement, additives

(polymer modified)

Colour: Grey
Filler composition: fine sandy
Loose density: 1.35 kg/dm³

Application/

substrate temp:  $+ 5 ^{\circ}\text{C}$  to  $+25 ^{\circ}\text{C}$ Pot life \*): approx. 2 hours

Open time \*): approx. 20 – 30 minutes
Grout after \*): after approx. 24 hours
Traffickable \*): after approx. 24 hours
Fully cured \*): after approx. 7 days

Testing: DIN EN 12004, MPA NRVV test certificate 220002647-04

\*) The values refer to 20°C and 65% relative humidity; higher temperatures shorten, lower temperatures lengthen the given timings.

#### **Surface preparation:**

The substrate must be dry, sound, suitably even, free from penetrating cracks, holes, voids and be free from separating substances like oil, paint, laitance and loose components. They must have an extensively closed surface, which must be in an appropriate condition with appropriate strength. When fixing tiles, the substrate, preparation and workmanship must be in accordance with DIN 18 157, part 1. Prime porous susbstrates with ASO-Unigrund. Anhydrite screeds must be abraded, vacuumed and like all calcium sulphate substrates primed with ASO-Unigrund-K diluted 1:3 with water. Before covering heated screeds must be commissioned in accordance with recognised technical regulations. Carry out moisture measurements with a carbide hygrometer (CM device) to determine the suitability of the substrate for laying. Moisture measurements may not exceed

- Cement screeds < 2.0 %
- Calcium sulphate screeds without underfloor heating ≤ 0.5 %
- Calcium sulphate screeds with underfloor heating ≤ 0.3 %

The carbide hygrometer measurement is to be carried out in accordance with current working practice of the FBH-AD from the technical information sheet "Coordinating cut-out areas in heated floor construction". The substrate may exhibit high levels of residual moisture when fixing ADF-Balkonfolie.

Brickwork should be flush pointed. Fill existing holes in concrete as well as the approx. 2 cm chiselled out bay spacers with ASOCRET-RN or cement mortar from group MG III with the addition of ASOPLAST-MZ.

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#### **Application:**

Mix ADF-Systemkleber to a smooth mortar with clean water, in a clean mixing vessel, using a slow speed drill and appropriate mixing paddle (300 rpm). For laying the waterproof membranes use approx. 8.5 litres of water per 25kg bag of ADF-Systemkleber in order to achieve good wetting out of the membrane. For a non-slip consistency for fixing tiles and slabs reduce the water quantity.

#### Mix ratio:

1.0 litre water: 2.9 – 3.4 kg ADF-Systemkleber.
7.25 – 8.5 litres water: 25.00 kg ADF-Systemkleber.
Leave to stand for 3 minutes before remixing. Do not mix more adhesive than can be used within the pot life.
Spread the ADF mortar onto the substrate and comb through with the appropriate notched trowel dependant on the material to be adhered. Lay materials within the adhesive open time.

#### Fixing ADF-Balkonfolie/SANIFIN:

Comb out the ADF-Systemkleber on to the substrate approx. 10cm wider than the relevant membrane with a 6mm notched trowel. Pre-trim the strip with a knife or scissors and lay in the adhesive (print uppermost). Then carefully press the appropriate waterproof membrane tightly into the adhesive bed with a float. Ensure an extensively void-free bedding and wetting of the membrane.

Fixing ASO-Joint-Tape-2000 and pre-formed pieces as joints in the ADF-Balkonfolie and SANIFIN (wall/floor junction, gaskets etc.) is also generally carried out with the ADF-Systemkleber. In wet duty exposures falling under classification C, ASO-Joint-Tapes should be installed with ASOFLEX-AKB.

Spread the ADF-Systemkleber approx. 1 cm wider than the ASO-Joint-Tape-2000/preformed pieces. Place the ASO-Joint-Tape-2000/preformed pieces in the fresh adhesive layer and push in evenly and without folds. Fixing must be carried out so that the membrane cannot migrate behind due to water presence. Due to the fleece laminated to the rear of the ADF-Balkonfolie, bonding

the waterproof tape and pieces is always carried out on the printed upper side of the membrane.

#### Fixing tiles to the ADF-Balkonfolie / SANIFIN:

In wall areas ceramic tiles can be fixed directly to the freshly adhered SANIFIN. Floor tiles can also be fixed to the freshly adhered SANIFIN or Balkonfolie where suitable protective boards are used to stand on. Tiles and slabs are fixed directly to the SANIFIN or Balkonfolie in the normal way. Spread the mixed adhesive onto the substrate and comb through with the appropriate trowel dependant on tile format. Fix tiles within the adhesive open time. In exterior and continuously wet areas, ensure tiles and slabs are extensively solid bedded. Grout with HFO5-Brillantfuge, ASO-Flexfuge or ASO-Fugenbunt.

## **Estimating & Supply:**

Consumption \*\*):

approx. 1.5 kg/m² with a 4mm notched trowel approx. 2.3 kg.m² with a 6mm notched trowel approx. 2.9 kg/m² with an 8mm notched trowel approx. 3.5 kg/m² with a 10mm notched trowel \*\*) Greater consumption on uneven substrates cannot be discounted.

#### **Packaging:**

25 kg bag with polythene liner

#### **Cleaning & Equipment Maintenance:**

With water immediately after use.

#### **Storage & Shelf Life:**

12 months when store dry and cool in original unopened packaging. Use opened packaging immediately.

#### Important advice:

- The ADF-Systemkleber can also be applied mechanically by using suitable spray equipment (e.g. PFT-Swing).
- Modify 25 kg ADF-Systemkleber with 2kg UNIFLEX-B

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when fixing ADF-Balkonfolie/SANIFIN to old well-fixed tiles.

- Where time pressures exist the ADF-Balkonfolie can be fixed with SOLOFLEX-SE. In these cases fixing of the waterproof tapes, binding tapes and the fixing of tiles is also carried out with ADF-Systemkleber.
- When fixing natural and synthetic stone observe the product specific properties of the material (tendency to discolour, danger of curling etc.) and the fixing recommendations of the manufacturer. Where doubt exists carry out a trial area.
- In order to avoid curling effects from water absorption we recommend that agglomerate / synthetic stone is fixed with ASODUR-EK98.
- Prime substrates with calcium sulphate binders with ASO-Unigrund-GE or ASO-Unigrund-K (diluted 1:3 with water). To avoid the formation of ettringite with calcium sulphate bound substrates, UNIFIX-AEK is suited for fixing on to these substrates up to residual moisture levels of 1.0% on heated constructions and 1.5% on unheated constructions using the carbide hygrometer method.
- As additional protection against the formation of ettringite with calcium sulphate bound substrates, the special adhesive UNIFIX-AEK is recommended for fixing the SANIFIN to these substrates.
- Do not re-life ADF-Systemkleber that has begun to stiffen by adding more water or fresh mortar. There is the danger of inadequate strength development.
- The direct contact between cement-based tile adhesives and magnesium-based screeds leads to the destruction of the magnesite screed. Rear penetrating moisture from the substrate must be eliminated with suitable measures. The magnesite substrate is to be mechanically abraded and primed with the epoxy resin INDUFLOOR-IB2360, see TDS for application instructions.
- In continuously wet areas (swimming pools, containers etc.) we recommend the use of system thin bed adhesives UNIFIX-2K, UNIFIX-2K/6 onto the SCHOMBURG waterproofing compounds suitable for the appropriate area of application.

- ADF-Systemkleber is a hydraulic setting mortar that is to be protected from water and frost penetration until it is completely hardened which may take several days under inclement weather conditions.
- Observe the appropriate relevant technical data sheet for the named products.
- Whilst using ADF-Systemkleber protect areas that are not to be treated.
- Follow relevant current regulations. For e.g.
   DIN 18157, DIN 18195, DIN 18352, DIN 18560, DIN 13813, DIN 18202, DIN 1055

   The BEB-information sheets distributed by Bundesverband Estrich und Belag e.V.

   The technical information "Coordinating cut-out areas in heated floor construction"

The ZDB information sheets distributed by the Fachverband des deutschen Fliesengewerbes:

- [\*] "Information on the installation of waterproofing in combination with ceramic tiles and slabs in internal and external areas"
- [\*2] "Ceramic tiles and slabs, natural stone and concrete blocks on calcium sulphate screeds."
- [\*3] "Movement joints in ceramic tile and slab coverings"
- [\*5] "Ceramic tiles and slabs, natural stone and concrete blocks on cementitious floor constructions with insulation layers."
- [\*6] "Ceramic tiles and slabs, natural stone and concrete blocks on heated cementitious floor constructions."
- [\*7] "Cladding construction with tiles and slabs external to buildings."

GISCODE: ZP1