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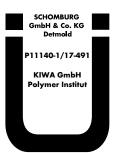


## **Technical Data Sheet**

# **AQUAFIN®-1K-PREMIUM**

### Art.-No. 2 04609

### 1 component flexible waterproof slurry ready to receive finishes early





- 1 component
- Rapid hardening
- Tiles can be fixed after only 3-4 hours
- Very easy to trowel and smooth off
- Easy and economic application
- Can be brushed, trowelled or sprayed with suitable equipment
- Flexible and crack bridging
- Very low emission EC1 plus in accordance with GEV-EMICODE
- Vapour permeable, resistant to frost, UV and ageing
- For interior and exterior use

### Areas of application:

Bonded waterproof membrane in combination with tiled finishes: for an assured and economical waterproof membrane beneath tiles where impermeability to water in long term to permanent exposure is required, e.g. in bathrooms and kitchens in living areas, private and public washroom facilities as well as swimming pool surrounds. Perimeter, connecting and bay sizing joints are to be reinforced with the incorporation of ASO-Joint-Tape-2000, ASO-Joint-Tape-2000-S or ASO-DB-Standard. AQUAFIN-1K-PREMIUM is suitable for wet duty exposure class A in accordance with Building Authorities test criteria for regulated areas PG-AIV-F and for wet duty exposure classes AO and BO in accordance with the ZDB technical sheet "Bonded waterproof membranes". The watertightness in the installed state, including the ASO-Joint-Tape system, was tested in accordance with the testing principles for waterproofing in conjunction with tiles and paving slabs.

Also available as bonded waterproofing for the water impact classes WO-I to W3-I, without chemical influence in accordance with DIN 18534.

AQUAFIN-1K-PREMIUM is suitable for indoor use in accordance with the evaluation scheme of the AgBB (committee for health-related evaluation of building products) and the "French VOC regulation" (French VOC classification regulation and KMR emissions regulation). AQUAFIN-1K-PREMIUM is very low emission in accordance with GEV-EMICODE, which normally results in positive evaluations within the scope of building certification systems in accordance with DGNB, LEED, BREEAM, HQE. Maximum quality level 4, lines 7 and 8 in accordance with DGNB criteria "ENV 1.2 Risks to the local environment".

#### **Technical Data:**

Basis:	Factory produced mortar,
	polymer-mortar combination
Pot life*:	approx. 60 minutes
Testing:	General technical certification
	for liquid applied waterproofing
	materials in combination with tiles
	and slabs, KIWA GmbH Polymer
	Institut P11140-1/17-491
	Report on classification of fire
	performance No. 230009166-4
Reaction to fire to	
DIN EN13501-1:	E
Substrate/application	
temperature:	+5 °C to +30 °C
to DIN EN 1542:	> 0.5 N/mm <sup>2</sup> after 28 days
Tear resistance*,	
to DIN 53504:	$> 0.4 \text{ N/mm}^2$
Elongation at break*,	
to DIN 53504:	>8%

Crack bridging* to DIN 28052-6 (PG MDS), 0.4 mm crack, maintained 24h: Waterproof performance of assembly to PG AIV,	passed		
(0.2 m WS):	passed		
Water vapour			
resistance factor µ:	арргох. 2,300		
Sd value at 2 mm	4 4		
dry film thickness: Consumption**:	approx. 4.6 m approx. 1.25 kg powder per		
consumption .	$m^2/mm$ dry film thickness		
Bonded waterproof	, ,		
membrane with tiles:	approx. 2.2 mm wet film thickness		
<b>F</b> U	giving approx. 2 mm dry		
Full service conditions:	<ul> <li>ready for tiles after approx.</li> <li>3-4 hours</li> </ul>		
	<ul> <li>water exposure after approx.</li> <li>7 days</li> </ul>		
Packaging:	15 kg bag		
r donagg.			
unopenec	dry, 9 month, in the original I containers. Use opened g promptly.		
Cleaning: Clean too	ls with water whilst product is		
	Soften dried on material with 1 and wash off.		
* at +23 °C and 60 % relative humidity			

\*\* Possible additional consumption in case of uneven substrates and where manual variations must be considered. In accordance with DIN 18534, a thickness supplement of at least 25 % should be included. The stated data may be extended or shortened as a consequence of project and weather conditions. Higher temperatures and lower humidity shorten the

drying time, lower temperatures and higher humidity extend the drying time.

System components	Wet duty exposure class A, A0	Wet duty exposure class BO
AQUAFIN-1K-PREMIUM	×	×
ASO-Unigrund-K	×	×
ASO-Unigrund-GE	×	×
ASO-Unigrund-S	×	
ASO-DB-Standard	×	
ASO-Joint-Tape-2000	×	×
ASO-Joint-Tape-2000 S	×	×
ASO-Joint-Tape-Sanitary	×	×
ASO-Joint-Tape-2000-Corners, (90°, interior/exterior)	×	×
ASO-Joint-Tape-2000-S-Corners, (90°, interior/exterior)	×	×
ASO-Joint-Tape-2000-T-Piece, -Cross-Piece	×	×
ASO-Joint-Sleeve-Floor/ -Wall	×	×
UNIFIX-S3	×	×
LIGHTFLEX	×	
MONOFLEX-white	×	
MONOFLEX-white hardened with UNIFLEX-F at a mass ratio of 3:1	×	×
MONOFLEX	×	
Monoflex-XL	×	
MONOFLEX-FB	×	
ASODUR-EK98-Wall/Floor	×	×
ASODUR DESIGN	×	×
SOLOFLEX	×	
SOLOFLEX-fast	×	
AK7P	×	
CRISTALLIT-FLEX	×	
CRISTALLIT-MULTI-FLEX	×	
UNIFIX-S3-FAST	×	×

#### Substrate preparation:

Suitable surfaces are all flat, load-bearing surfaces that can be covered with tiles and slabs and that are suitable for the installation of waterproofing in combination with tiled finishes. Furthermore, the suitability of the substrate must be given in the corresponding wear class / water impact class (see ZDB leaflet [\*1]/ DIN 18534). Suitable substrates are e.g. dense concrete, render P II and III, fully pointed masonry work, cement-based screed, moisture resistance plasterboard and gypsum fibre board. Open textured substrates such as cast concrete blocks, heavy concrete blocks and masonry work are to be rendered with a cement-based mortar or suitable smoothing compound e.g. SOLOCRET-50.

The substrate must be load-bearing, adequately flat to DIN 18202, free from penetrating cracks and be free from separating substances such as e.g. oil, paint, laitance and loose parts.

The substrate must have a largely closed surface texture and exhibit surface properties and strength commensurate with its type. DIN 18157, part 1 or DIN 18534 is mandatory with regard to substrate, substrate preparation and application. Separating cracks are to be highlighted and, as necessary, adhesively sealed beforehand with e.g. ASODUR-K900.

Renders to DIN EN 998-1 must have a minimum compressive strength of 2.5 N/mm<sup>2</sup> to be suitable for tiling and for the relevant wet duty classification.

Pre-wet the substrate so that at the time AQUAFIN-1K-PREMIUM is applied, it is matt damp. Prime very absorbent and slightly sandy substrates with ASO-Unigrund. Prevent height differences within the substrate and exclude moisture migration from the rear.

Even out irregularities appropriately before using AQUAFIN-1K-PREMIUM. Levelling may be carried out with e.g. SOLOPLAN-30-PLUS, SOLOCRET-15 or SOLOCRET-50.

Ensure adequate falls, in the direction of drainage, are formed in areas exposed to water.

Floor drains should have a thin-bed flange with a minimum circumferential width of 5 cm to accommodate the ASO-Joint-Sleeve and be composed of a material suitable for bonding to e.g. stainless steel, bronze, PVCU.

Heated screeds must be commissioned prior to the installation of tiled flooring in accordance with recognized technical regulations. The readiness of a substrate to receive tiled finishes is to be determined through moisture measurements with a carbide hygrometer (CM device). The CM moisture content may not exceed:

- CT  $\leq$  2.0 CM% for screeds on insulation or separating layers
- CA without underfloor heating  $\leq 0.5$  CM%
- CA with underfloor heating  $\leq 0.3$  CM%

The CM measurements are to be carried out to the current FBH-AD work instructions from the technical information "Coordination of cut out points with heated floor constructions."

Calcium sulphate screeds can be accepted in wear class AO or water impact classes WO-I and W1-I with indirect exposure, must be sanded, vacuumed and, like all calcium sulphate-bonded substrates, primed with ASO-Unigrund.

#### **Product application:**

Place approx. 3.8–4.1 litres of water in a clean mixing bucket and stir with the powder to a homogenous consistency. With a mechanical drill mixer (approx. 500–700 rpm), a mixing time of approx. 2–3 minutes is necessary. Apply AQUAFIN-1K-PREMIUM by spray, brush or trowel techniques in a minimum of two coats. Further coats can be applied when the previous coat will not become damaged during application of the next coat. Apply coats to a maximum of 2.5 mm in a single operation as greater thicknesses may result in cracks within the coating.

Suitable joint tapes and pre-formed pieces are listed under "Technical data/system components". Bond the joint tape or pre-formed piece with AQUAFIN-1K-PREMIUM and subsequently seamlessly incorporate within the surface applied membrane and overcoat so that migration around the rear is prevented. See also technical description 3.1.5

- **1.** Prepare the substrate in accordance with the requirements for each substrate.
- 2. Pre-wet the substrate so that at the time AQUAFIN-1K-PREMIUM is applied, it is matt damp. Prime very absorbent and slightly sandy substrates with ASO-Unigrund, allow the primer to dry before continuing with other work steps.
- **3.** Apply AQUAFIN-1K-PREMIUM with a plasterer's trowel, paint brush or suitable spray equipment. An even coat is achieved using a 4 to 6 mm notched trowel followed by smoothing. Overcoat any missed areas. At least 2 coats are necessary. The previous coat must have dried before the next coat is applied.
- 4. To form waterproof movement and connecting joints, incorporate the ASO-Joint-Tape-System. Using a 4-6 mm notched trowel, apply AQUAFIN-1K-PREMIUM to both sides of the joint to be bridged to a min. 2 cm wider than the joint tape. Lay the ASO-Joint-Tape-System into the wet coat and thoroughly press into the waterproof coating with a trowel or pressure roller ensuring no voids or folds. Ensure full bedding and wetting out as far as possible. Bond in such a way as to prevent water migration around the back of the ASO-Joint-Tape-System. The Joint Tape system is laid in a loop in the movement joint. Joint-Tape edges are to overlapped by a min. of 5 to 10 cm and fully bonded, without voids or folds, with AQUAFIN-1K-PREMIUM, then overcoated.
- Tiling in thin-bed adhesives is carried out with a polymer modified adhesive listed in "Technical data/ system components".

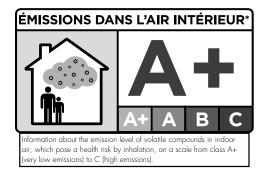
#### Advice:

- Protect areas not being treated during the application of AQUAFIN-1K-PREMIUM!
- Avoid dropping below the dew point (condensation) during the application and drying phases on the substrate and AQUAFIN-1K-PREMIUM.
- Allow for extended drying times in rooms with low temperatures, high humidity and inadequate ventilation. Direct heating in such rooms for drying purposes is not suitable.
- Work against the direction of the sun in strong sunlight, work in the shade.
- During the curing process the waterproof membrane may not come into contact with water. Water penetrating from the rear may be lead to delamination in frost.
- Where there is moisture penetration from the rear, it is necessary to pre-waterproof with AQUAFIN-1K.
   Dependent on the water pressure, one or more coats may be needed. In certain projects pre-waterproofing can also be carried out with ASODUR-SG2/-SG2-thix.
- Direct contact with metals such as copper, zinc and aluminium is to be prevented by a pore sealing primer. A pore sealing primer can be produced using two coats of ASODUR-GBM. Liberally apply the first coat to substrate cleaned with Aceton. Once this coat has reacted sufficiently so that it can no longer be disturbed (approx. 3 - 6 hours), brush apply a second coat of ASODUR-GBM and broadcast with 0.5 - 1.0 mm quartz sand. Consumption approx. 800 - 1000 g/m<sup>2</sup> ASODUR-GBM.
- To waterproof PVC, gunmetal and stainless steel flanges, abrade the flange, clean and degrease, apply AQUAFIN-1K-PREMIUM and the ASO-Joint-Sleeve-floor without voids or folds and seamlessly connect with the membrane used on the rest of the area.
- Heed the relevant current regulations. E.g. DIN 18195
   DIN 18157
   DIN 18352

DIN 18534 DIN 18560 DIN EN 13813 DIN 1055 The BEB information sheets, distributed by the Bundesverband Estrich und Belag e.V. The technical information "coordination of cut out points in heated floor constructions". The ZDB information sheets, distributed by the professional association of the German tile industry: [\*1] "Bonded waterproof membranes"" [\*3] "Movement joints in wall and floor tile finishes"

- [\*5] "Ceramic tiles, natural stone and cementbound composite slabs on cement-based floor constructions with insulation"
- [\*6] "Ceramic tiles, natural stone and cement bound composite slabs on heated cement-based floor constructions"
- [\*7] "Finishes in exterior areas"

#### Please use a current valid EU Safety data sheet. GISCODE: ZP1



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