



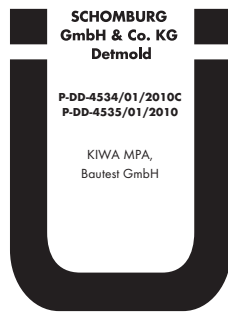
Technical Data Sheet

AQUAFIN®-RS300

Rapid hybrid waterproofing

Art.-No 2 04208

CE	
SCHOMBURG GmbH & Co. KG Aquafinstraße 2 – 8 D-32760 Detmold 14 2 04208	
EN 14891 AQUAFIN-RS300 Liquid-applied water impermeable cement-based product for use beneath ceramic tiling in external areas	
EN 14891: CM	
Initial tensile adhesion strength:	≥ 0.5 N/mm ²
Tensile adhesion strength	
after water contact:	≥ 0.5 N/mm ²
after heat aging:	≥ 0.5 N/mm ²
after freeze/thaw cycles:	≥ 0.5 N/mm ²
after contact with lime water:	≥ 0.5 N/mm ²
Water impermeability:	no water penetration
Crack bridging:	≥ 0.75 mm



- Tested against aqueous solutions aggressive to concrete in accordance with DIN 4030
- Tested against negative hydrostatic pressure
- Tested in transition areas in water impermeable structures

Areas of application:

Due to its reactive properties, AQUAFIN-RS300 is an efficient application as a construction waterproofing and for waterproofing beneath tiles.

It is furthermore suitable for application on old, well bonded bitumen substrates. Critical application, e.g. applications with high humidity, low temperatures etc., can be carried out assuredly and without long waiting times.

- Seamless and joint free construction waterproofing and waterproofing beneath tiles
- Multi-functional
- Highly flexible crack bridging
- Self cross-linking hydraulic cure
- Rapid reactive through drying
- Very low loss on drying
- After 3 hours resistant to rain and foot traffic and ready for overcoating
- Vapour permeable, resistant to frost, UV and ageing
- Sulphate resistant
- Resistant to de-icing salts
- Resistant to pressure
- Suitable for all load-bearing substrates conventional to construction
- Easy and very smooth application
- Highly slump resistant
- Can be brushed, trowelled or sprayed with suitable equipment
- Solvent free
- Bonds without priming to matt-damp substrates
- Construction waterproofing to DIN 18195, part 2, tables 7 and 8

Structural waterproofing:

For structural waterproofing concrete or masonry work on walls and floors in contact with the ground in new build and renovation within existing buildings against the exposure conditions:

- Ground moisture/non-standing seepage water in accordance with DIN 18195 part 4
- Water not under pressure on surface areas and in wet rooms in accordance with DIN 18195, part 5
- Standing seepage water in accordance with DIN 18195, part 6
- Water under pressure in accordance with DIN 18195, part 6 (with suitable construction)
- Waterproofing against positive water pressure on the inside of container construction in accordance with DIN 18195, part 7 (e.g. swimming pools, service water containers, effluent containers)
- Horizontal waterproofing in and beneath walls against capillary rising moisture
- The waterproofing of external walls in contact with the ground against standing seepage water and water under pressure up to 3 m head of water including the transition zone to the concrete floor slab with high resistance to water penetration (waterproof concrete)

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- Combination waterproofing as well as transitions such as e.g. base plinth waterproofing
 - Suitable for bonding protective and thermal insulation
- When applied in containers or exposed to soft water with a hardness of < 30 mg CaO/l, an analysis of the water is a fundamental requirement. Assessment of the degree of attack is carried out to DIN 4030. AQUAFIN-RS300 is resistant up to the degree of attack "strong attack" (exposure class XA2).

Bonded waterproof membrane with tiles:

For the safe and economical waterproofing beneath tiles, where water impermeability to longer term exposure or constant exposure is required, e.g. in bathrooms and kitchens in living areas, private and public washrooms as well as on balconies and terraces, swimming pools and pool surrounds. At the wall/floor junction, reinforce the surface applied membrane by incorporating ASO-Joint-Tape-2000 or ASO-Joint-Tape-2000-S, dependent on the wet duty exposure class. AQUAFIN-RS300 is suitable for use in wet duty exposure classes A and B in accordance with DIN 18195, part 7 and wet duty exposure classes A0 and B0 in accordance with the ZDB data sheet (* 1). The waterproof performance as installed on site has been tested including ASO-Joint-Tape systems in accordance with the test principles for mineral based waterproofing slurries (MDS) as well as waterproofing together with tile and slab finishes (AIV) up to a 15 m column of water.

Technical Data:

	Liquid component	Powder component
Basis:	polymer dispersion	special cement, functional fillers
Mixing ratio:	1 part by weight	1 part by weight
Packaging:	20 kg combined product	
	10 kg bucket	2 x 5 kg bag
	10 kg combined product	
	5 kg bucket	5 kg bag
Colour:	white	grey

Storage:

Liquid component:

frost free, 6 months in the original unopened container. Use opened containers promptly

Powder component:

cool and dry, 6 months

Combined product

Density:	approx. 1.3 g/cm ³
Pot life *):	approx. 45 minutes
Overcoat after*:	approx. 2-4 hrs
Substrate / application temp:	+5° C to +30° C
Tensile adhesion strength to DIN EN 1542:	> 1.0 N/mm ²
Crack-bridging, to DIN 28052-6 (PG MDS , AIV):	> 0.4 mm crack, 24 hr maintained
Crack-bridging, to EN 14891:	> 2.0 mm
Waterproof performance installed on site to PG MDS and AIV:	15 m water column
Impermeability to negative hydrostatic pressure:	1.5 bar
Water vapour resistance factor μ:	approx. 1100
Sd value at 2 mm dry film thickness:	approx. 2.5 m

Exposure condition/material consumption/dry film

thickness/ ground moisture/ non-standing seepage water:	min. 3.0 kg/m ² approx. 2 mm
Water not under pressure:	min. 3.0 kg/m ² approx. 2 mm
Standing seepage water/ water under pressure:	min. 3.75 kg/m ² approx. 2.5 mm

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System component	Wet duty classification		
	A, AO	B (incl. classes A, AO)	Construction waterproofing
ASO-Joint-Tape-2000	x	-	-
ASO-Joint-Tape-2000-S	x	x	x
ASO-Joint-Tape-2000-corners, (90°, internal/external)	x	-	-
ASO-Joint-Tape-2000-S-corners, (90°, internal/external)	x	x	x
ASO-Joint-Tape-2000-T-pieces, cross pieces	x	x	x
ASO-Joint-Sleeve-Floor/Wall	x	x	x
ADF-Rohrmanschette (ADF-Pipe-Gasket)	-	-	x
ADF-Dehnfugenband (Expansion-Joint-Tape)	-	-	x
UNIFIX-S3	x	x	-
UNIFIX-2K	x	x	-
UNIFIX-2K/6	x	x	-
LIGHFLEX	x	x	-
MONOFLEX-XL	x	x	-
MONOFLEX-FB	x	x	-
ASODUR-EK98-Floor/Wall	x	x	-
ASODUR-Design	x	x	-
SOLOFLEX	x	x	-
AK7P	x	x	-
CRISTALLIT-flex	x	-	-
SOLOFLEX-white modified with UNIFLEX-B	x	x	-
CRISTALLIT-MULTI-flex	x	x	-
UNIFIX-S3-FAST	x	-	-
SOLOFLEX-FAST	x	-	-

In accordance with the WTA information sheet
"Retrospective construction waterproofing of structural
components in contact with the ground":

Ground moisture/non-standing
seepage water: min. 3.0 kg/m²
approx. 2 mm
Water not under pressure: min. 4.5 kg/m²
approx. 3 mm
Standing seepage water/
water under pressure: min. 4.5 kg/m²
approx. 3 mm

Waterproofing in accordance with
DIN 18195, part 7:

Without tiled finish: min. 3.0 kg/m²
approx. 2 mm
Bonded with tiles
or slabs: min. 3.0 kg/m²
approx. 2 mm

Apply approx. 1.1 mm wet film thickness per mm dry film
thickness.

Greater consumption must be factored in for uneven
substrates.

Performance

under exposure*):

- Rainfast on sloped areas after approx. 3 hours, avoid exposure to standing water
- Waterproof against water pressure, (1 bar) after approx. 24 hrs
- ready for tile installation after approx. 6 hours

*) at +23° C and 50% relative humidity

Cleaning: Clean tools with water whilst product is still fresh. Soften dried on material with AQUAFIN-Cleanser and wash off.

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Substrate preparation:

The substrate must be load-bearing, largely flat and fully pointed, open pored and with a compact surface. It must be free from gravel pockets, cavities, gaping cracks and ridges, dust and be free from adhesion inhibiting substances such as oil, paint, laitance and loose parts. When using in combination with tiled finishes, DIN 18157, part 1 is decisive regarding substrate assessment.

Suitable substrates are concrete with a dense microstructure, renders P II and III, fully pointed masonry work, cement-based screed, poured asphalt of hardness class IC10, moisture resistant plasterboard and gypsum fibre boards, heated and unheated constructions. AQUAFIN-RS300 can be used for restoring old, well bonded bitumen containing substrates. Waterproofing is to be performed with a scratch coat and after complete drying, overcoated with two layers at a thickness commensurate with the exposure conditions. In accordance with the WTA data sheets 4-6, the foot of the perpendicular as well as the transition to the splash zone is to firstly be taken back to the mineral-based substrate.

Corners and edges, e.g. on base slabs etc., are to be broken or chamfered. Firstly even up depressions > 5 mm as well as mortar pockets, open masonry joints, voids, substrates with large pores or uneven masonry work with a suitable cement-based mortar e.g. ASOCRET-M30 or SOLOCRET-1.5. Alternatively evening up or filling can be carried out with a mixture of AQUAFIN-RS300/0.1 - 0.35 mm quartz sand (approx. 5 kg per 20 kg AQUAFIN-RS300).

Pre-wet substrates so that they are matt damp at the time of application. Prime very absorbent substrates as well as aerated concrete or gypsum containing substrates with ASO-Unigrund-GE or ASO-Unigrund-K to improve adhesion.

Penetrations should be supplied with a thin-bed flange at a minimum continuous width of 5 cm and consist of a suitable material to receive a bond e.g. stainless steel, red brass, PVC-U. When the flange width is too small (> 30 mm < 50 mm), we recommend bonding the ASO-Joint-Sleeve - in the transition zone of the flange - with ASOFLEX-AKB-Wall.

Exclude rear moisture penetration and point loading of water from the negative side. When waterproofing where there is rear moisture penetration, we recommend a preliminary waterproofing with AQUAFIN-1K in order to prevent pressure. Dependent on the water forces exerted, carry out one or several layers of preliminary waterproofing. The consumption for ground moisture exposure conditions is min. 1.75 kg/m² and for standing seepage water min. 3.5 kg/m² of AQUAFIN-1K. For concrete structures, moisture stresses from the negative side can also be excluded with ASODUR-SG2/-SG2-thix. When using ASODUR-SG2/-SG2-thix a consumption of 600 - 1,000 g/m² is required.

Product application:

Pre-wet the substrate so that it is matt damp at the time AQUAFIN-RS300 is applied. Prime highly absorbent and lightly sanded substrates with ASO-Unigrund-GE or ASO-Unigrund-K. The primer must be completely dry before subsequent work is undertaken.

Place approx. 50 - 60 % of the liquid component into a clean mixing bucket and blend with the powder component to an homogenous lump free mass. Then add the remaining liquid component and adequately blend. A mix time of approx. 2 - 3 minutes is required using a mechanical mixer (approx. 500 - 700 rpm). After a waiting time of approx. 5 minutes, thoroughly homogenize the mix once again.

Apply AQUAFIN-RS300 by brush or trowel in a minimum of two pinhole free coats. The second and further coats

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can only be applied when the first coat will not become damaged by trafficking or further coating (approx. 2 - 4 hrs dependent on ambient conditions). An even thickness, dependent on the exposure conditions, is achieved e.g. by using a thickness depth trowel or a 4 - 6 mm notched trowel and subsequently smoothing.

Alternatively AQUAFIN-RS300 can also be applied by spraying with suitable spray equipment e.g. HighPump M8 (peristaltic pump), HighPump Small or HighPump Pictor (screw feed pump). Information from HTG HIGH TECH Germany GmbH, Berlin, www.hightechspray.de.

When applying by spray techniques a water addition of max. 0.15 l/10 kg AQUAFIN- RS300 is permitted dependent on the equipment.

For forming water impermeable movement and connecting joints, use the ASO-Joint-Tape system components appropriate to the particular exposure classes (see table of system components).

Using a 4 - 6 mm notched trowel, apply AQUAFIN-RS300 to both sides of the joint to be bridged extending to a width at least 2 cm wider than the joint tape to be used. Lay the joint tape into the fresh coating and then thoroughly press into place without voids or folds. The bond must ensure there is no water migration around the back. Lay the joint tape to be used in a loop over movement joints. Overlap the ends of the joint tape by min. 5 - 10 cm, fully bond with AQUAFIN-RS300 without folds. Finally, overcoat the bonded joint tapes with AQUAFIN-RS300 and seamlessly integrate into the surface applied coating. Use the same techniques for inserting pre-formed pieces.

The installation of tiles or slabs is carried out with one of the tile adhesives named in the system components. At the time of tile installation, the waterproofing layer must be completely hardened. Alternative to the ASO-Joint-Tape system (production of a mineral-based coved fillet):

Pre-slurry the foundation slab/wall transition with AQUAFIN-1K. Whilst still wet, create a coved fillet in ASOCRET-M30 with a min. approx. 4 cm edge length. Once completely dried, implement the waterproofing measures with AQUAFIN-RS300.

Pipe penetrations:

In the exposure condition of ground moisture and non-standing seepage water, penetrations are to be treated with mineral-based fillets and, once fully dried, incorporated within the surface applied AQUAFIN-RS300. In the exposure condition of standing seepage water / pressure water, use penetrations with bonded/lapped/integral flanges. Reinforce the transition zone between flange/substrate using ASO-Joint-Sleeve.

Transitions in water impermeable concrete structures to a submersion depth of 3 m (max. opening width 1.0 mm):

Waterproofing is carried out on the surface, cleaned free of unevenness and cement slurries, to a minimum width of 15 cm either side of the joint. Carry out the waterproofing to the wall/floor junction approx. 15 cm down the face of the water impermeable foundation slab.

Always apply 2 coats. Insert an ASO-Verstärkungseinlage (reinforcing-fleece) into the first coat. Subsequently achieve an even thickness by using a 4 to 6 mm notched trowel and then smoothing.

Consumption is approx. 6 kg/m² for a dry film thickness of approx. 4.0 mm.

Drainage and protection boards with structures in the ground:

Protect waterproofing from weathering and mechanical damage through suitable protective measures in accordance with DIN 18195 part 10. Only install protective layers once the coating is fully dry. Suitable protection and drainage boards can be fixed on battens of COMBIDIC-1K and perimeter insulation is to be butt jointed and fully bonded with COMBIDIC-2K-CLASSIC or COMBIDIC-2K-PREMIUM.

Alternatively the protective layers can be fully bonded

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with a blend of AQUAFIN-RS300/0.1 - 0.35 mm quartz sand (approx. 5 kg per 20 kg AQUAFIN-RS300) and a suitable notched trowel and the buttering-floating method.

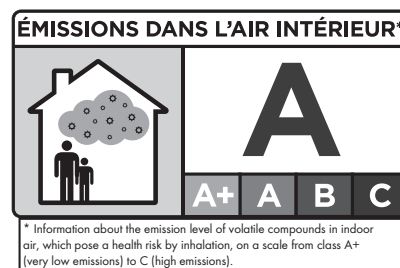
Incorporate drainage in accordance with DIN 4095 specifications.

Advice:

- In accordance with DIN 18195, mineral-based waterproofing slurries may currently only be installed where it is permitted in the relevant section of the standard. This is currently DIN 18195, part 7. All other applications are to be contractually agreed with the client and in accordance with VOB, part C, DIN 18336 to be unambiguously and separately declared in the technical specification.
- Protect areas not being treated during the application of AQUAFIN-RS300.
- During the curing process the waterproof membrane cannot come into contact with water. Water penetrating from the rear can lead to delamination in frost.
- When there is strong sunshine, work against the direction of the sun working in the shaded areas.
- Due to the high polymer content a slight stickiness on the surface may occur in high temperatures. In this case we recommend post-treating with water in order to guarantee complete hydration.
- In rooms with high humidity and/or inadequate ventilation (e.g. water containers) it may drop below the dew point on the surface (condensation formation). This is to be prevented with suitable measures such as e.g. dehumidifiers. Direct heating or uncontrolled blown warm air is not permitted.
- In container construction with strong currents, the AQUAFIN-RS300 coating is subjected to increased erosion, this is especially true when combined with high water temperatures (> +25°C). We recommend that the suitability of AQUAFIN-RS300 is assessed in relation to the project or protected by a tiled finish.
- In shallow water areas combined with increased water flow, AQUAFIN-RS300 is subjected to increased erosion. We recommend that the suitability of AQUAFIN-RS300 is assessed in relation to the project or protected by a tiled finish.
- As a surface protection AQUAFIN-RS300 may not be subjected to point or linear loading.
- Renders/plasters may be applied over AQUAFIN-RS300 as can be paints, which must be vapour permeable, solvent free dispersions or silicate dispersion paints (not pure silicate paints).
- 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 the degreased and cleaned substrate. 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 0.2 - 0.7 mm quartz sand. Consumption approx. 800-1000 g/m² ASODUR-GBM.
- To waterproof PVC, red brass and stainless steel flanges, abrade the flange, clean, degrease, apply AQUAFIN-RS300 and the ASO-Joint-Gasket or alternatively bed in the ASO-Pipe-Gasket without voids or folds and seamlessly connect with the surface applied membrane.
- Observe the relevant current regulations!

Please observe the current valid EU Safety data sheet!

**GISCODE: ZP1 (component A)
D1 (component B)**



This technical data sheet does not consider local building codes or legal requirements. It shall be used as general reference for the product, based on our current knowledge and experience. Legally binding is only the latest Data Sheet from one of our foreign subsidiaries inside their sales territory. In any case of uncertainty please consult our technical department for further information.