

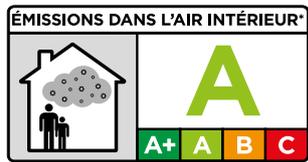


# ACQUASHIELD-2KF

Flexible two component polymer-modified waterproofing cementitious coating

- Crack bridging > 2,60 mm
- Easy to use - can be brush, spray, roller or trowel applied
- Vapour permeable
- Waterproof - resistant to 5 bar (positive side water pressure)
- Can be tiled or left uncoated\*
- UV, weather and freeze-thaw resistant
- Bonds well to damp substrates without priming
- Ecological
- Conforms to EN 14891 CM P
- **CE**

\* excluding swimming pools and tanks



**TECHNICAL FEATURES:** ACQUASHIELD-2KF is a flexible elastomeric, 2-comp. polymer modified coating that waterproofs and protects concrete, masonry, brick and some natural stone substrates with crack-bridging properties. ACQUASHIELD-2KF has excellent adhesion characteristics and provides a seamless system which can be left as the finished surface\*, or can be top-coated with tiles, pavers, paint, or other coatings.

\* excluding swimming pools and tanks

**AREAS OF APPLICATION:** For waterproofing water structures, sewage treatment plants, exterior basement walls, retaining walls, swimming pools, fountains, aquarium & zoo tanks, spillways, wet areas, under tiled applications, exposed and decoupled roofs and sealing of expansion and construction joints with BWSTAPE.

## CONTRACT ITEM SPECIFICATIONS:

Supplies and setting of bicomponent, flexible waterproofing coating, polymers and cement-based, conforms to EN ISO 14891 crack bridging value > 2,6 mm, resistant up to 5 bar in positive pressure, UV resistant, resistant to weathering and to frost-thaw cycles such as ACQUASHIELD-2KF by Benfer. At least two coats of ACQUASHIELD-2KF are necessary for a total thickness of 1,5 mm. Second coating must be applied only when the first one cannot be damaged by following coatings (not before 4 hours at 20°C). Do not apply thick coats over 2 kg/m<sup>2</sup> (approx.. 1 mm of thickness of dry film) in one application, to avoid the possible formation of cracks and slits.



TECHNICAL ASSISTANCE



INSURANCE GUARANTEE



TECHNICAL MEETINGS



PROFESSIONAL USE



**SUITABLE SUBSTRATES:****General waterproofing:**

- External waterproofing of old and new buildings against ground moisture, humidity, pressure water
- Horizontal waterproofing beneath masonry.
- Internal waterproofing against humidity from outside\*
- For waterproofing of underground car parks, prefabricated garages, areas of high humidity, terraces and balconies
- For the fixing of BSWTAPE and BSWTAPE-Sleeve

**Waterproofing beneath tiles:**

- Safe and economic waterproofing beneath tiles in wet rooms, where water impermeability against long term and permanent water table is demanded, i.e. in bath rooms, kitchens, shower rooms, on balconies and terraces
- For waterproofing inside swimming pools

\* *REMARK: use ACQUASHIELD- 1K as base coating, when applications must resist to negative hydrostatic pressure.*

**METHOD OF USE:****SUBSTRATES PREPARATION:**

The surface must be clean, sound and fine pored. It must be free from grease, dust, pockets, cracks and ridges. ACQUASHIELD-2KF is suitable for smooth concrete, screed, mastic asphalt, plaster, gypsum board and masonry. Coarsely pored surfaces like gutter blocks or precast concrete blocks have to be grouted with cement mortar ACQUASHIELD-1K. Prime highly absorbent surfaces like light weight concrete or gypsum boards with

PRIM to improve adhesion. Use suitable methods to prepare the substrate dependent on its condition such as e.g. brushing, vacuuming, grinding, milling, shotblasting and water jetting.

**DETAILS:**

- Fillet cove, ledging corner: Form between masonry and foundation a fillet cove of 4 cm length with preblended mortar TRIOTECH-30 or TRIOTECH-50 or cement-based mortar and CEMLATEX 600 additive.
- Existing cracks can be sealed with ACQUASHIELD-2KF by embedding the BSWTAPE into the first layer.
- For moving cracks and construction joints use BSWTAPE.

**PRODUCT PREPARATION:**

Pour approx. 2/3 of the liquid component ACQUASHIELD-2KF Comp. B into a clean container and add ACQUASHIELD-2KF powder component whilst stirring until a lump free mass is achieved. Mixing time of 2 - 3 minutes is required. After that, add the remaining ACQUASHIELD-2KF Comp. B and stir until a uniform consistency is achieved.

NOTE: Depending on application, max. 1.5% (approx. 0.5 l / 35 kg) water can be added during mixing in order to adjust application consistency.

**PRODUCT APPLICATION:**

The substrate must be damp during the application. ACQUASHIELD-2KF can be applied by brush, trowel, roller or appropriate spray equipment. At least two coats of ACQUASHIELD-2KF are necessary. The applied thickness of the waterproofing must correspond with the required minimum thickness for the expected wet duty conditions.

Only apply the second layer when the first coat will not be damaged by further applications (at +20°C after 4 hours at the earliest). Due to the possibility of crack formations avoid applied thicknesses greater than 2 kg/m<sup>2</sup> (= 1 mm dry film thickness) in one application to prevent the formation of cracks.

**IMPORTANT ADVICES:**

- In hot and humid climates coating may become slightly tacky/sticky during the curing process. If this occurs, mist coating with water 24 hours after application to ensure complete hydration of material.
- Negative water pressure can lead to delamination during frost conditions.
- ACQUASHIELD-2KF can be overplastered and also be painted with diffusion permeable and solvent-free paints (no silicate paints).
- In areas with high humidity and inadequate ventilation (i.e. in water tanks) allow for extended drying times.
- Avoid direct sunlight during application.
- Pre-dampen the surface prior to application of ACQUASHIELD-2KF.
- Protect areas not be treated from ACQUASHIELD-2KF.
- Eliminate direct contact with metals such as copper, zinc and aluminium with pore-tight, priming agent. For sealing of PVC and stainless steel flanging, abrade the flanges and degrease with isopropanol or acetone. Apply ACQUASHIELD-2KF and bed in BSWTAPE.
- To increase pot life/working time at higher temperature store material in a cool environment above +5°C and only expose to warm temperature shortly before mixing. Additionally use of cold water can also increase pot life/working time, if water addition is necessary.
- The powder component of ACQUASHIELD-2KF is classified as "irritant" .

Please observe a valid European Materials Safety Data Sheet (MSDS).

## Loading case / consumption / dry layer thickness / Positive waterproofing:

Type of application	Water head	Total recommended Min. consumption ( kg/m <sup>2</sup> )	Dry thickness (mm) **
Roofs, decoupled	below 1 m	2,0-2,25	1,0
	Traffic	2,5-3,0*	1,3
Roofs, composite waterproofing	below 1 m	2,5-3,0	1,3
	Traffic	3,0-4,0*	1,5
Balconies/terraces	non tiled	3,0-4,0	1,5
	tiled	4,0	2,0
Plaza decks		3,0-4,0*	1,5
Swimming pools	Up to 25 mt	3,0	1,5
	50 mt covered with specific adhesive	4,0-4,5	2,0
below grade	below 2 m	2,0-2,5	1,0
	below 2-4 m	3,0	1,5
	below 4-7 m	3,5	1,8
	below 7-10 m	4,0	2,0
	below 10 m	4,5	2,3

## Negative waterproofing below grade &amp; direct water contact (on ACQUASHIELD-1K substrate):

Type of application	Water head	Total recommended Min. consumption ( kg/m <sup>2</sup> )	Dry thickness (mm) **
Below grade	below 2 m	2,0-2,5	1,0
	below 2-4 m	3,0	1,5
	below 4-7 m	3,5	1,8
	below 7-10 m	4,0	2,0
	below 10 m	4,5	2,3

\* Depends of the amount of traffic

\*\* Min. thickness of cured film on any point of the coating. These are technical limits of the product and do not reflect legal requirements for your application. Please review local building codes for conforming min. film thickness. These may be higher than the technical possible min. values stated. Uneven surfaces may demand more material to reach the specified thickness.

**CLEANING:** With water before hardening.

**CONSUMPTION:** See datasheet.

**PACKAGING:** ACQUASHIELD-2KF is available in 35 kg (25 kg powder/10 kg liquid) and 7 kg (5 kg powder/2 kg liquid) units. Powder supplied in bags, liquid in pails.

**STORAGE:** In the original closed package in a cool dry place.

**SHELF LIFE:** 12 months In original unopened packaging. Consume open packs immediately.

#### PRODUCT TECHNICAL DATA

Classification:	EN 14891 CM P
Basis:	Premixed powder (Comp.A) liquid polymer (Comp.B)
Colour:	White or grey (Comp.A) - white (Comp.B)
Conservation:	12 months in the original closed package in a cool dry place
Danger of harm:	Possible irritation of the eyes and skin upon contact
Flammability:	No
Mixture ratio:	2,5 : 1 part
Mixing time:	2-3 min. (drilling machine min. 300 - 500 r/min)
Consistency :	Thixotropic mortar
Apparent mass volume:	1600 kg/m <sup>3</sup> ,
Application temperature:	From + 5° C to + 35° C
Pot life:	Approx. 60 min. at + 23°C, about 20 minutes at + 35°C
Maximum/minimum thickness:	From 1 mm to 2 mm per coat (at least 2 coats)
Waiting time before applying second coat:	Between 90 min. and 4 hours, according to climate conditions
Light traffic on dry supports	1 day
Resistance to rain after approx:	6 hours*
Resistance to high pressure water after approx:	7 days*
Setting of tiles after approx.:	1 day*
Adhesion strength:	≥ 0,5 N/mm <sup>2</sup>
Tensile strength:	≥ 0,5 N/mm <sup>2</sup>
Tensile strength after water immersion:	≥ 0,5 N/mm <sup>2</sup>
Tensile strength after thermal aging :	≥ 0,5 N/mm <sup>2</sup>
Tensile strength after freeze-thaw cycles :	≥ 0,5 N/mm <sup>2</sup>
Tensile strength after contact with limewater :	≥ 0,5 N/mm <sup>2</sup>
Tensile strength after contact with chloridewater :	≥ 0,5 N/mm <sup>2</sup>
Water permeability:	None
Crack bridging:	> 2,60 mm
Resistant to traction according to EN 53504:	4,2 N/mm <sup>2</sup>
Elongation at break according to EN 53504:	150%
Water vapour resistance :	Approx. 1,000 μ
Sd:	Approx. 2 m
Sd CO <sub>2</sub> :	Approx.. 200 m
Inflammability classification:	B2 (DIN 4102 Part 1)
Resistant to abrasion:	110 mg (ASTM D 4060:01)
Shore 'A':	Approx. 85
Permeability to rapid chloride:	85% reduction (ASTM-C 1202.97)
Resistance to temperature:	From -20°C to + 60°C (not coated); From -30°C to + 90°C (coated)
	* at 23°C and 50% relative humidity

PLEASE NOTE: The information given in this chart is based on our best experience and indicative only. It must in any event be verified by the end user, who assumes all liabilities deriving from utilization of the product.