

AQUAFIN®-TC07

2-COMP., POLYMER-MODIFIED WATERPROOFING

Product Description:

AQUAFIN®-TC07 is a 2-comp., polymer-modified, cement-based protective waterproofing material for concrete masonry, render or screeds against penetrating moisture.

Primary Uses:

AQUAFIN®-TC07 is used as a waterproof coating on wall and floor surfaces, water containers, foundations, etc. against positive and negative water pressure. It is for the treatment of substrates with no risk of cracking and without excessive moment.

Advantages:

- Seamless and joint-free flexible protective coating.
- Suitable for all load-bearing substrates conventional in construction.
- Hydraulically curing.
- Very easy application – apply with a brush, trowel or suitable equipment.
- Vapour permeable, resistant to frost, de-icing salts and ageing
- UV stable.
- High abrasion resistance.
- Impermeable to water up to 5 bar.
- Resistant to solutions and aggressive concrete according to DIN 4030.

Typical Properties:

Basis	: 2-comp., cement-based powder and liquid dispersion.
Colour	: Grey powder, white liquid.
Density of Fresh	: Approx. 2.0kg/dm ³ Mortar
Mixing ratio slurry	: 1:4 liquid: powder by weight
Spray	
Mixing ratio trowel	: 1:4.5 liquid: powder by Weight
Mixing	: Approx. 2-3 minutes.
Pot life +23°C	: Approx. 45 minutes.
Pot life +35°C	: Approx. 30 minutes.
Substrate/ Application temperature	: Min. approx. +5°C, to max. approx. +35°C. Lower temperatures extend, and higher temperatures reduce curing times.
Adhesion strength	: Approx. 1.0 N/mm ² (ASTM D 4541:2002)
Flexural/ compressive strength	: Approx. 10/ 40 N/mm ² at 28 days. (ATSM D 412-98a)
Tensile strength	: 8 N/mm ² (ATSM D 412-98a)
Elongation	: 10% (ATSM D 412-98a)
Crack bridging	: 0.41mm (ATSM C 836:95)
Abrasion resistance	: 311 mg (ATSM D 4060:01)

Water permeability	: Nil at 5 bar (BS EN 12390)
Initial surface absorption	: Nil (BS 1881 Part 208:96)
Shore'D'	: D/80?1 (ATSM D 2240:05)
Rapid chloride permeability	: <5% reduction (ASTM-C 1202.97)

Substrate Preparation:

The substrate must be load-bearing, largely flat and have a closed surface. It must be free from gravel pockets, shrinkage cavities, gaping cracks, ridges, dust and separating substances such as e.g. oil, paint, laitance and loose components. Weakly bonded coatings are to be removed with suitable measures such as pressure washing or sand/grit blasting. Suitable substrates are tightly jointed concrete, cement-based renders, fully pointed masonry work and cement-based screeds. Even out open-pored substrates or uneven masonry work with cement mortars. Pre-wet substrates so that at the time of application they are matt damp, avoiding puddle formation. Prime very porous substrates with ASO®-Unigrund. The Aquafin PCC system is available for reprofiling substrates. Joints and detail construction such as pipe penetrations etc. are to be carried out with the ASO® Joint-Tape System. (Please refer to the technical data sheet). For substrates damaged by de-icing salts abrade back to a neutral area using suitable measures such as e.g., scabbling.

Mixing:

Depending on the desired consistency and the area of application AQUAFIN®-TC07 can be mixed at a ratio of 1:4 or 1:4.5. Place approx. 80% of the liquid component into a clean mixing bucket and mix with the powder component to a homogenous lump-free consistency. A mixing time of approx. 2-3 minutes is required with a mechanical mixer (approx. 500-700 rpm). Depending on the method of the application add the remaining liquid component.

*Note: The addition of extra water is not permitted.

Application:

Apply AQUAFIN®-TC07 by spraying, brushing, or troweling in min two coats. The second as well as the following coats may only be applied once the first coat will no longer become damaged. Avoid application thickness of more than 2kg.m² in a single layer. Implement suitable protective measures against weather influences such as strong sunlight, wind, etc and mechanical damage during the first 24 hours.

Estimating & Supply:

Packaging:

6kg and 24kg units Material consumption:

Vertical application and in contact with soil:

Depth of immersion (m)	Recommended minimum consumption per application	Recommended minimum consumption total	Dry film thickness
Up to 1.0 m	1.0 kg/m ²	2.0 kg/m ²	Approx. 1 mm
1.0 to 3.0 m	1.5 kg/m ²	3.0 kg/m ²	Approx. 1.5 mm
Over 3.0 m	2.0 kg/m ²	4.0 kg/m ²	Approx. 2.0 mm

Greater material consumption on uneven substrates cannot be disregarded. Loading *):

- Foot traffic after 24 hours.
- Water pressure after 7 days *) at 20°C and 60% relative humidity.

Cleaning & Equipment Maintenance:

Clean tools while in the fresh state with water, softly dried on material with AQUAFIN®-Cleanser.

Storage & Shelf Life:

Powder Component: cool and dry, 6 months.

Liquid Component: Frost-free, 12 months in the original unopened packaging, use opened packaging promptly.

*NOTE: the liquid component is sensitive to frost. When the ambient temperature is $>35^{\circ}\text{C}$ the material must be stored under climatized conditions.

Advice:

- Protect areas not to be treated with AQUAFIN®-TC07 from its effects.
- Water may not be added to AQUAFIN®-TC07.
- AQUAFIN®-TC07 is suitable for bridging small static shrinkage/ hairline cracks up to 0.1 mm. It is not suitable for bridging large or dynamic cracks.
- At higher temperatures the surface may be slightly tacky. In this case we recommend post-treatment with water in order to guarantee complete hydration.
- AQUAFIN®-TC07 may not be subjected to any linear loading.
- In rooms with high relative humidity and inadequate ventilation (e.g., water containers) extended drying times are to be expected.
- When using water containers, a water analysis is strictly necessary. For an assessment of the aggressiveness of the water in accordance with DIN 4030 the information on the portion of lime-soluble carbonic acid is decisive.
- When there is strong sunlight working against the direction of the sun in the shaded areas.
- In enclosed containers temperatures from $+10^{\circ}\text{C}$ to 15°C are to be expected. In order to guarantee complete hydration of the cement keep the coating damp for an adequate length of time (constant relative humidity of 80%). In general, 7 days is sufficient. Strictly avoid the formation of condensation of a film of standing water during this time period after application.
- When there is a danger of dropping below the dew point (formation of condensation) install dehumidifiers until the mortar has cured. Never blow in uncontrolled warm air.
- During settling the waterproofing may not be exposed to water. Water penetrating from the rear can lead to delamination.
- Direct contact with metals such as copper, zinc and aluminium are to be excluded through pore-deep priming. Pore deep priming is produced with coats of INDUFLOOR®-IB 1225. Apply the first coat thoroughly saturating with the substrate (cleaned with INDU®-IB Cleanser). After waiting approx. 3-6 hours apply the second coat and broadcast with 0.2-0.7 mm particle size quartz sand. Consumption approx. 800-1000 g/m².
- For waterproofing PC and stainless-steel flanges, roughen the flange and degrease with universal cleaner. Apply AQUAFIN®-2K/M and bed in waterproof gaskets or alternatively ADF- pipe gaskets, without voids or folds subsequently coat with AQUAFIN®-TC07 (please refer to the technical data sheet for AQUAFIN®-2K/M).
- To increase pot life/ working time at a higher temperature store material in a cool environment above $+5^{\circ}\text{C}$ and only expose it to a warm temperature shortly before mixing. Additionally, the use of cold water can also increase pot life/ working time if water addition is necessary.

*NOTE: Please observe a valid EU health and safety data sheet.