

AQUAFIN[®]-TC05

2-comp., polymer-modified crystalline waterproofing Coating

Description:

AQUAFIN-TC05 is 2-comp., polymer modified, crystalline, cement based protective waterproofing material for concrete, masonry, render or screeds against penetrating moisture.

Primary Uses:

AQUAFIN-TC05 is used as a waterproof coating on wall and floor surfaces, water containers, foundations etc. against positive and negative water. It is for treatment of substrates with no risk of cracking and without excessive movement.

Advantages:

- Seamless and joint free semi flexible coating
- Suitable for all load-bearing substrates
- Hydraulically curing
- Very easy application - apply with a brush, trowel or suitable spray equipment
- Vapor permeable, resistant to frost, de-icing salts and aging
- UV stable
- Abrasion resistance
- Impermeable to water
- Resistant to mild aggressive solutions to concrete

Typical Properties:

Basis:	2-comp., cement-based powder and liquid dispersion
Color:	grey powder, white liquid
Density of fresh mortar:	approx. 2.0 kg/dm ³
Mixing ratio slurry/	
Spray:	1:4 liquid:powder by weight
Mixing ratio trowel:	1:4.5 liquid:powder by weight
Mixing time:	approx. 2-3 minutes
Pot life +23° C:	approx. 45 minutes
Pot life +35° C:	approx. 30 minutes
	Even out open pored

Substrate / Application temperature:	min. approx. +5 to max approx. +35 C. Lower temperature extend, higher temperatures reduce curing times
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Technical Properties:

Adhesion strength:	> 1.0 N / mm ²
Tensile strength:	approx. 0.5 N / mm ²
Initial surface absorption:	Nil
Shore 'D':	D/80/1 (ASTM D 2240:05)

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 tight jointed concrete; cement-based renders, fully pointed based renders, and fully pointed masonry work and cement-based screeds. substrates or uneven masonry work with cement mortars. Pre-wet substrates so that at the time of application they are matt damp.

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The Aquafin PCC system is available for reprofiling substrates. Joints and detail construction like pipe penetrations etc. are to be carried out with the ASO-Joint-Tape System. (Please refer to 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:

Dependent on the desired consistency and the area of application AQUAFIN-TC05 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 mix time of approx. 2-3 minutes is required with a mechanical mixer (approx. 500 – 700 rpm). Dependent on the method of application add the remaining liquid component. The addition of extra water is not permitted.

Application:

Apply AQUAFIN-TC05 by spraying, brushing or troweling in min two coats. The second, as well as following coats, may only be applied once the first coat will no longer become damaged. Avoid application thicknesses of more than 2 kg/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:

4 kg Part B and 16 kg Part A

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, softened 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° C the materials must be stored under climatized conditions.

Advice:

- Protect areas not to be treated with AQUAFIN-TC05 from its effects.
- Water may not be added to AQUAFIN-TC05.
- AQUAFIN-TC-05 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-TC05 may not be subjected to any point or linear loading.
- In rooms with high relative humidity and inadequate ventilation (e.g., water containers) extended drying times are to be expected.

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- When using in 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.
- In enclosed containers temperatures from +10° 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 or a film of standing water during this time period after application.
- When there is the danger of dropping below the dew point (formation of condensation) install dehumidifiers until the mortar has cured. Never blow in uncontrolled warm air.
- When there is strong sunlight work against the direction of the sun in the shaded areas.
- During setting 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 aluminum are to be excluded through pore deep priming. Pore deep priming is produced with two coats of INDUFLOOR-IB 1280. Apply first coat, thoroughly saturating the substrate (cleaned with Metal Cleaner). 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 PVC and stainless-steel flanges, roughen the flange and degrease with universal cleaner. Apply ASO Unigrund-P and bed in waterproof gaskets or alternatively ADF-pipe gaskets, without voids or folds and subsequently coat with AQUAFIN-TC05 (please refer to the technical data sheet for ASO Unigrund-P).
- 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.