AQUAFIN®-IC

Crystalline waterproofing slurry



REZYKLATGEHALT DIN Geprüft
Folienverpackung Reg.-Nr.: Y8Y007

KRISTALLINE ABDICHTUNG | CRYSTALLINE WATERPROOFING

DAMPFDIFFUSIONSOFFEN VAPOUR PERMEABLE

Material number	Package type	Colour	Units / pallet	Pc/package
204220001	25 kg, bag	Grey	42	1
204220001SXP	25 kg, bag	Grey	42,000	1,000

Fields of application / waterproofing

- for waterproofing concrete containers, e.g. water tanks, sludge tanks and septic tanks.
- For reliable waterproofing of concrete substrates

Product features

- Carbonation reducing
- Suitable for drinking water after DVGW worksheet W-347 and W-270
- Increased active crack healing in concrete
- -

Advantages

- Seals cracks that may subsequently develop up to 0.4 mm
- Can be applied to damp substrates
- Penetrates the concrete via the capillaries
- Remains permanently active
- Chloride-free
- Withstands high hydrostatic loading

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Technical Data

Material properties

Product components	1 component system
Base material	Pre-blended dry mortar
Consistency	Liquid
Density (spec. weight)	approx. 1.6 kg/dm³
Tensile adhesion strength DIN EN 1542	≥ 0.5 N/mm²
Watertightness against negative pressing water	to 1,5 bar
Impermeability to water in accordance with CRD-C 48-92	14 bar
Classification of the reaction to fire in accordance with DIN EN 13501-1	A1

Mixing

Mixing time	approx. 3 minutes
Maturing time	approx. 3 minutes
Water addition	From 6.75 l to 8 l per 25 kg
Water addition (percentage)	approx. 27 - 32 %

Application

Substrate/application temperature	approx. 5 - 30 °C
Pot life	approx. 60 minutes
Consumption pro m² and mm layer thickness	approx. 1 kg
Foot traffic after	approx. 5 hours
Withstands pressurised water after	≥ 7 days

Material rate

Material consumption rate according to the area of application

Water load	Consumption	Application layers
Soil moisture/non-accumulating seepage water	0,75 kg/m²	1
Non-pressurised water	1,2 kg/m²	2
accumulated water	1,5 kg/m²	2

Increased material consumption for uneven flooring is excluded.

Processing equipment

Aids/tools

- Stirrer (approx. 500-700 rpm)
- Suitable mixing paddle
- Spray equipment
- Wide brush

Manual processing

Spreadable with a wide brush

Machine application

AQUAFIN®-IC can be mechanically applied. For precise information, see the additional Technical Information No. 43.

Suitable substrate

- Concrete

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Preparing the substrate

Requirement for substrate

1. Firm
2. Load-bearing
3. Pore open
4. Free of adhesion inhibiting substances
5. Absorbent

Preparing the details

1. Open defective construction joints and visible cracks (not dynamic) over 0.4 mm to a width of up to 20 mm and a depth of 25 mm and repair with ASOCRET-IM.
2. Water ingress must be stopped in advance with FIX 10-S plugging cement or FIX 20-T.
3. Repair voids with the ASOCRET-BIS-System or ASOCRET-IM.

Preparing the surface

1. Smooth surface areas must be mechanically roughened to achieve a good penetration depth.
2. It is imperative to dampen the surfaces to be sealed with clean water beforehand. Repeated moistening is necessary to alter the absorption behaviour and to favour the growth of the crystals. The surface must be matt damp at the time of application. The formation of puddles must be avoided.
3. A load-bearing substrate is a precondition for a long-lasting bond between the substrate and coating system. Less adhesive and bond-damaging substances must be completely removed. High-pressure water jetting (> 400 bar; < 2000 bar) and jets with fixed blasting agents are suitable measures. The last application step must be cleaning with pressure water jetting.

Application

Mixing

1. Depending on the desired consistency, pour From 6.75 l to 8 l per 25 kg of water into a clean mixing bucket and add enough powder while stirring vigorously until the mortar is homogeneous and clump-free.
2. Mix again after an activation time of 5 minutes.

Waterproofing

1. Apply AQUAFIN®-IC in a minimum of two application steps ensuring it is free of pores.
2. Brush evenly and work into the substrate meticulously.
3. Apply the second layer while the first layer is still sticky and has not yet dried out. Drying of the 1st layer must be avoided.

Movement and connecting joints

For watertight formation of moving and connecting joints, use ASO-Dichtband system components in accordance with their technical data sheets.

Curing and protection

1. The fresh coating must be protected against weathering influences, e.g. sun, wind, rain and frost, etc., for ≥ 24 hours. The waterproofing layer must be kept damp for ≥ 3 days. Initial dampening takes place one day after application and is repeated at set intervals. In case of strong solar radiation or wind loads, we recommend using water-soaked jute sheets. Backfilling of the building pit can take place 3 days after coating.
2. The material cures very well in areas with high humidity. In relatively dry areas, keep the coating damp for at least 3 days. In poorly ventilated rooms and deep pits, adequate ventilation should be provided for 24 hours.
3. Filling of containers is possible after 3 days. Rinse out drinking water tank thoroughly with drinking water before filling. When properly applied, AQUAFIN-IC is permanently active.

Storage conditions

Storage

Store in a cool and dry place. Min. 12 months in the original canister. Promptly use opened container.

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Notes

- Protect surfaces that are not to be treated from the effects of AQUAFIN®-IC!
- In rooms with high humidity and/or insufficient ventilation (e.g. water containers), dropping below the dew point (condensation formation) may occur on the surface. This must be avoided by taking suitable measures such as by using condensation dryers. Direct heating or uncontrolled blowing warm air is not permitted.
- If applied in containers or in case of water loading with aggressive or soft water featuring hardness < 30mg CaO per l, a water analysis is always required. The degree of attack is evaluated in accordance with EN 1992-1-1 (Euro Code 2).
- In the service water tanks, temperatures around +10 °C to +15 °C are usually expected. In order to ensure complete hydration of the cement, the coating is kept damp for a sufficiently long period (constant relative humidity of > 80%) and protected against drying. 7 days are generally sufficient for this.
- AQUAFIN®-IC cannot be used as an additive to concrete or plaster and must not be admixed with such products.
- AQUAFIN®-IC cannot be overcoated with the following coatings, e.g. tiles, plaster, bonded screeds or paint.
- In concrete with a fly ash proportion, discolouration or a reduced reaction of AQUAFIN®-IC may occur with a subsequent application of AQUAFIN®-IC. The proportion of fly ash as per ASTM C-618 Type C must be a max. of 30% of the binder. The minimum CaO content of the fly ash must not exceed 15%. For concrete with fly ash type C with a low CaO proportion, type F or other puzzolan concrete additives, please contact our technical services stating the respective specification.
- The reaction between AQUAFIN®-IC and the free lime in the concrete can result in slight efflorescence. This does not represent a defect and can be removed with a broom, for example.
- Different colouring depends on the different moisture content in the concrete.
- AQUAFIN®-IC may require at least 1 month in order to achieve its maximum sealing characteristics. Influence factors are the ambient temperature, humidity, type of cement, concrete composition, etc.

Observe applicable safety data sheet!

Explanations

Conformity / Declaration / Verification

CE

SCHOMBURG GmbH & Co. KG
Aquafinstraße 2–8
D-32760 Detmold (Germany)
14
204220-1

EN 1504-2
204220
Surface protection material
Implementation of the moisture balance

Principle 2.2(C)

Capillary water absorption and water permeability	$w < 0.1$ kg/m² × $h^{0.5}$
Water vapour permeability	class I – $S_D < 5$ m
Pull-off test for assessment of adhesion	≥ 1.0 N/mm²
Reaction to fire	class A1

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