

AQUAFIN[®]-IC

Crystalline waterproof slurry



Properties:

- Penetrates the capillaries in concrete.
- Continually active.
- Can be applied to damp substrates.
- Chloride free.
- Resists high levels of hydrostatic pressure.
- Carbonisation barrier.
- Waterproofs retrospective cracks up to 0.4mm.
- Test certificates to DVGW worksheets W 347 and W 270 are available.

Areas Of Application:

Exterior and interior waterproofing in cellars, lift shafts, foundations, retaining walls.

Waterproofing containers for drinking and service water, retaining basins, water treatment plants, garages, tunnels etc.

Waterproofing beneath screeds (unbonded screeds or floating screeds).

An analysis of the water is necessary where the hardness degree is $\leq 3\%dH$. For the assessment of aggressiveness towards concrete to DIN 4030 the level of lime soluble carbon dioxide is obligatory.

Technical Data:

Basis:	sand/cement, inorganic
Bulk density:	1.1kg/litre
Packaging:	25 kg bag
Colours:	grey, white
Mix:	25kg Aquafin-IC to 6.75 to 8.0 litres clean water
Mixing time:	3 minutes (drill with 300-500rpm)
Pot life:	30 to 60 minutes (at +23°C/60%)
Substrate/application temp:	+5°C to +30°C. Lower temperatures extend, higher temperatures reduce the curing time.
Cleaning of tools:	with water when in the fresh state, remove dried material with ASO-Steinreiniger
Storage:	dry, 12 months in the original unopened packaging. Use opened packaging promptly.

Material Consumption:

Ground moisture/ non standing backwater:	0.75 kg/m ² in one coat.
non-hydrostatic pressure:	1.2 kg/m ² in two coats.
Rising damp/ hydrostatic pressure:	1.5 kg/m ² in two coats
Dry film thickness:	min. 0.8 mm

Greater material consumption on uneven substrates cannot be discounted.

Ready for exposure at +20°C and 60% relative humidity:

- to rain after approx. 24 hours
- to foot traffic after approx. 5 hours
- backfilling the building trench after 3 days
- filling containers after approx. 7 days

Compressive strength:	after 7 days approx. 18 N/mm ²
	after 14 days approx. 21 N/mm ²
	after 28 days approx. 25 N/mm ²

Water impermeability: > 13 bar negative or positive side

Surface Preparation:

The substrate must be sound, clean and have an open capillary structure. The surface must be porous and permit a good surface adhesion so that the chemicals can penetrate well into the concrete. Horizontal areas should have a rough surface. Smooth surfaces must be mechanically abraded in order to achieve good penetration.

1. All adhesion inhibiting substances such as dirt, cement laitance, mould oil, hardeners, loose components, paint etc. must be removed, by acid cleaning, sand blasting, water jetting, or other mechanical methods. Smooth substrates from formwork must be acid cleaned with ASO-Steinreiniger and subsequently rinsed with plenty of water.
2. Eradicate all ridges, gravel pockets and other damaged areas. Poor day joints and visible cracks (non-dynamic) above 0.4 mm should be chased out 20 mm wide by 25 mm deep. Anchoring holes should be roughened.
3. Plug water leaks with FIX 10-S plugging cement.
4. Repair damaged areas with the repair mortar ASOCRET-RN or ASOCRET-IM dependent on area of application.
5. Connecting joints as well as construction joints are achieved with ASO-Dichtband-2000-S and the use of AQUAFIN-2K/M (please see Technical Data Sheet).
6. Wetting all surfaces to be waterproofed with clean water is advisable. Repeated dampening produces saturation through which the porosity of the substrate is preset whilst at the same time promoting the growth of crystals deep in the pores of the substrate. When using AQUAFIN-IC the substrate should be matt damp and not wet. Avoid the formation of puddles.



Product Preparation:

Pour 6.75 to 8.0 litres of clean water into a clean mixing bucket and mix in sufficient dry mortar whilst mechanically stirring (drill at 300-700 rpm) until a lump free, homogenous fluid or sprayable consistency is achieved. Only mix as much material that can be used within 30-60 minutes. After a maturing time of min. 3 minutes, stir through once again.

Application:

Application by the slurry method:

Spread two coats of AQUAFIN-IC at the required quantity in a slurry consistency with a roofers brush or builders brush. Brush thoroughly and evenly, working into the substrate. Apply the second coat whilst the first coat is still tacky and hasn't dried out.

Spray application:

AQUAFIN-IC can be applied with the aid of suitable compressed air spray equipment. Dependent of the final wet duty of the installation spray apply one or two coats in a circular motion. Apply the second coat whilst the first coat is still tacky and hasn't dried out.

Hardening and protection:

- In exteriors or exposed areas: keep the waterproof coating damp for at least 3 days. Protect areas exposed to the weather from sun, wind and frost with e.g. polythene sheets, canvas etc. Re-wet the area at intervals with water, the first time 1 day after application. Alternatively the surface can be covered with polythene. The fresh coating should be protected from rain for a minimum of 24 hours. Backfilling of the building trench can take place 3 days after the last coat.
- Interiors: In areas with high humidity the material cures very well. In relatively dry areas keep the coating damp for 3 days. Ensure that there is adequate ventilation for 24 hours in areas of poor ventilation and deep pits.
- Containers: Filling is possible after 3 days. In the case of drinking water storage, the container must be thoroughly rinsed with drinking water before filling. When properly installed, AQUAFIN-IC is permanently active.

Important advice:

- Protect areas not to be treated with AQUAFIN-IC from its effects.
- AQUAFIN-IC cannot be used as an additive for concrete or renders i.e. it should not be mixed with such products.
- With concrete containing fly-ash it is possible that successive coats of AQUAFIN-IC may discolour and there may be an impaired reaction. The fly-ash component according to ASTM C-618 type C may only be max. 30% of the binder. The minimum quantity of CaO in the fly-ash should not be below 15%. Please contact the technical department declaring the particular specification for concretes with type C fly-ash with low CaO content, type F or other pozzolanic concrete additives.

- The reaction between AQUAFIN-IC and the free lime in the concrete can lead to minor efflorescence. This is not detrimental and can be removed with a brush.
- Different colourings are dependent on the differing dampness of the concrete.
- A sound substrate is a prerequisite for a durable bond between the substrate and the coating system. Friable areas and substances that inhibit bonding must be completely removed. High pressure water jetting (>400 bar), very high pressure water jetting (up to 2000 bar) and shot blasting are suitable methods. The final treatment must be to clean by pressure washing.
- In water containers temperatures around +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%) and protect against drying out. In general 7 days is sufficient. It is essential to avoid the formation of condensation or standing films of water during this period. Where there is a danger of dropping below the dew point (condensation formation) install dehumidifiers until the mortar is cured. At no time should uncontrolled warm air be blown inside.
- AQUAFIN-IC may need up to one month to achieve its maximum waterproofing properties. Influencing factors are ambient temperature, humidity, concrete composition etc.

Please observe a valid EU health and safety data sheet.

GISCODE: ZP1

Equus Industries Ltd
PO Box 601
Blenheim
Phone: 03 578 0214 Fax 03 578 0919
Email: admin@equus.co.nz
Web: www.equus.co.nz