

Elastomeric acrylic cement modified waterproof coating

DESCRIPTION

Aquaproof 2K Plus is a two component; elastomeric polymer modified cementitious waterproof coating suitable for internal and external applications.

Aquaproof 2K Plus provides a hardwearing, seamless, waterproof membrane for potable water retaining structures, tanks, basements, foundations and culverts.

Aquaproof 2K Plus shows excellent crack accommodation and is suitable for use on concrete.

APPLICATIONS

- Waterproofing of water retaining structures and reservoirs.
- » Waterproofing of basements, roof, and foundations.
- » Waterproofing of bathrooms and wet areas.
- » Protection of concrete substrates and masonry against carbon dioxide, chloride ions, water and de-icing salts.

ADVANTAGES

- » Non-toxic, approved for use in contact with potable water.
- » Elastomeric, can accommodate static and dynamic cracks.
- » Fungus and mould resistant.
- » Able to withstand high positive and negative water pressures.
- Excellent bond to porous and non-porous surfaces.
- » Breathable.
- » Durable, excellent protection against carbon dioxide, chloride ions and water.
- » Cost effective, quick and easy brush or spray application.
- » Suitable for internal and external applications.

STANDARDS

Aquaproof 2K Plus complies with:

- » EN 14891 CMO2P.
- » EN 1504-2 Principle 1(PI); 2(MC); 8(IR).

TECHNICAL PROPERTIES:

Colour: Grey

Density: $1.90 \pm 0.1 \text{ g/cm}^3$

Water permeability at positive pressure: DIN 1048-5

Impermeable @ 7 bars, 3 days

Water permeability at negative pressure: DIN 1048-5

Impermeable @ 5 bars, 3 days

TECHNICAL PROPERTIES EN 1504-2:

Adhesion to concrete: 1.49 N/mm²

Adhesion to concrete @ 28 days at 20°C and 50% R.H: 1.49 N/mm²

Static crack-bridging at

-10°C:

Class A4 > 1.25 mm

Static crack-bridging at

-20°C:

Class A3 > 0.5 mm

Resistance to thermal shock

@ 70°C:

≥ 1.5 N/mm²

Capillary absorption and permeability to water:

< 0.1 kg/m².h^{0.5}

Permeability to water vapour - equivalent thickness of air

Class 1: SD < 5 m (Vapour Permeability)

 $S_{\scriptscriptstyle D}$:

Permeability to Carbon

Dioxide (CO₂):

> 50 m

Chloride ion content:

0.05%



METHOD OF USE

SUBSTRATE PREPARATION

The surfaces to be coated should be clean, sound, and free from contamination. Remove any traces of curing compound, laitance, mold release agents, organic growth, or any other loose materials. This is best obtained by using high pressure water or light grit blasting.

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Note: Solvent based primers and coatings like Repcoat primer and Setseal A should be removed mechanically before applying Aquaproof 2K Plus.

PRIMING

No special primer is required, but substrate should be presoaked with clean water prior to application of Aquaproof 2K Plus.

MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Add the liquid component of Aquaproof 2K Plus to a clean container.

The powder component is then added slowly to the liquid while mixing continuously with low speed mixer/drill (400 - 600 rpm). Mixing time should be continued for 3 minutes until a uniform consistency is obtained.

APPLICATION

Aquaproof 2K Plus can be applied by brush, trowel, or spray machines. The mixed material should be brushed well into the surface. Strike off with brush in one direction.

Care must be taken not to spread the materials too thin. The first coat should be applied at a wet film thickness of 1 mm. When the material begins to drag, do not add any water, but dampen the surface again.

Leave the first coat to cure for a minimum of 4 hours before applying the second coat, depending on ambient temperature, relative humidity and ventilation conditions. If the first coat is fully dried, pre-soaking is needed before applying the second coat.

TECHNICAL PROPERTIES EN 14891:

Initial tensile adhesion strength after aging under standard conditions:	≥ 0.5 N/mm²
Adhesion strength after immersion in water:	≥ 0.5 N/mm²
Tensile adhesion strength after freeze–thaw cycles:	≥ 0.5 N/mm²
Tensile adhesion strength after heat ageing @ 70°C:	≥ 0.5 N/mm²
Tensile adhesion strength after contact with lime water:	≥ 0.5 N/mm²
Tensile adhesion strength after contact with chlorinated water:	> 0.5 N/mm²
Permeablity @ 150 kPa:	Nil
Crack briging ability under standard conditions at 20°C and 50% RH:	> 0.75 mm
Crack bridging ability at low temperature @ - 5°C:	> 0.75 mm
Crack bridging ability at low temperature @ -20°C:	> 0.75 mm

For brush applications, the second coat should be applied in a perpendicular direction to the previous layer to ensure good bond and coverage. Tiling over the waterproofing could start after a minimum of 4 hours after the application of the second layer, depending on ambient temperature, relative humidity and ventilation conditions.

To achieve a smooth finish, it is recommended to finish the surface with a trowel immediately after brushing the second coat. The total dry film thickness for both coats should be 2 mm.

REMARKS

- » Aquaproof 2K Plus should not be applied to frozen substrates or if ambient temperature is below 5°C or expected to fall below 5°C.
- The area must not be exposed to moving water during application.
- Aquaproof 2K Plus can be submerged with water after 5 – 7 days of application depending on ambient temperatures and relative humidity.
- Where cementitious plaster is to be applied over Aquaproof 2K Plus, a mix of sand, cement and Cempatch SBR should be sprayed over Aquaproof 2K Plus as key. Addition rate of Cempatch SBR should be 10 litre/bag of cement.
- Fair faced concrete should be roughened mechanically to ensure good adhesion, if this is not possible contact DCP technical department for advice.

CLEANING

All tools should be cleaned immediately after finishing using clean water. Hardened materials should be cleaned mechanically.

PACKAGING

Aquaproof 2K Plus is available as 23 kg packs.

COVERAGE

Approximately 12.5 $m^2/23$ kg for one coat @ 1 mm thickness.

STORAGE

Aquaproof 2K Plus has a shelf life of 12 months from date of manufacture if stored at temperatures between 5° C and 50° C.

If these conditions are exceeded, DCP Technical Department should be contacted for advise.

HEALTH AND SAFETY

CAUTIONS

As Aquaproof 2K Plus contains Portland cement, Aquaproof 2K Plus may cause irritation to skin or eyes. In case of accidental contact with eyes, immediately flush with plenty of water for at least 10 minutes and seek medical advise if necessary.

For further information refer to the Material Safety Data Sheet.

FIRE

Aquaproof 2K Plus is nonflammable.



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