Aquaproof 1K

One component, cementitious, polymer-modified waterproof coating

DESCRIPTION

Aquaproof 1K is a one-component, cementitious, polymer-modified waterproofing solution that is suitable for both internal and external applications. It offers durable and seamless waterproofing, ensuring effective protection against moisture.

APPLICATIONS

- Waterproofing under tiles in bathrooms, kitchens, and wet areas.
- Waterproofing against rising and capillary moisture in garages and basements.
- Waterproofing against non-pressure water; suitable for plastering external walls and plinths.

ADVANTAGES

- One component requires only the addition of water.
- Cost-effective and quick to apply with a brush or spray.
- Breathable – allows water vapour to escape from the structure.
- Excellent bond to both porous and non-porous substrates.
- Non-toxic.
- Protects concrete structures and masonry from carbonation, chloride ions, and water.

STANDARDS

Aquaproof 1K complies with EN 1504-2 and EN 14891 as per the properties mentioned.

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, organic growth or any other loose materials. This is best obtained by using high pressure water or light grit blasting. Substrate containing honey combing, damaged or deteriorated concrete should be repaired using suitable repair mortars from DCP repair systems before coating.

PRIMING

No special primer is required, but substrate should be pre-soaked with clean water prior to application of Aquaproof 1K.

TECHNICAL PROPERTIES @ 25°C:	
Colour:	White and grey
Mixed density:	1.75 ± 0.05 g/ml
Bulk density:	1.38 kg/ltr
Working time:	1 hr
Open time:	10 min
Initial setting:	4 - 5 hr
Application temperature:	5 to 45ºC
Flow: Brushable consistency Sprayable consistency	 0.31 @ W/P 0.35 @ W/P

Performance Characteristics	EN 1504-2 Requirements	Measured Value
Permeability to water vapour	Class 1 sD < 5 m Class II 5 m < sD ≤ 50 m Class III sD > 50 m	Class 1 sD < 5 m
Capillary absorption and permeability to water	< 0.1 kg/m².h$^{0.5}$	< 0.1 kg/m².h$^{0.5}$
Adhesion strength by pull off test:	For flexible systems without trafficking: ≥ 0.8 MPa with trafficking: ≥ 1.5 MPa	≥ 1.5 MPa

Performance Characteristics	EN 14891 Requirements	Measured Value
Initial tensile adhesion strength	≥ 0.5 MPa	≥ 1.5 MPa
Tensile adhesion strength after water contact	≥ 0.5 MPa	≥ 1.0 MPa
Tensile adhesion strength after heat ageing	≥ 0.5 MPa	≥ 1.5 MPa
Waterproofing	No penetration	No penetration

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MIXING

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Add the suitable amount of water to a clean container.

The powder component is then added slowly to the water 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 1K can be applied by brush, 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.

A minimum of 3 - 5 hours, depending on the prevailing ambient temperature, should be given for the first coat to cure before applying the second coat. If the first coat is fully dried, pre-soaking is needed before applying the second coat.

For brush applications, the second coat should be applied in a perpendicular direction to the previous layer to ensure good bond and coverage.

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 1K 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 1K can be submerged with water after 5 – 7 days of application depending on ambient temperatures and relative humidity.

CLEANING

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

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PACKAGING

Aquaproof 1K is available in 5, 10 and 20 kg bags.

COVERAGE

Approximately 1 m²/1.38 kg per one coat @ 1 mm thickness.

YIELD

Approximately 0.75 m² per 1 kg powder @ 1 mm thickness.

STORAGE

Aquaproof 1K has a shelf life of 12 months from date of manufacture if stored at temperatures range between 5°C and 40°C.

If these conditions are exceeded, contact DCP Technical Department for advice.

CAUTIONS

HEALTH AND SAFETY

As Aquaproof 1K contains Portland cement, Aquaproof 1K 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 1K is nonflammable.

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- Concrete admixtures.
- Surface treatments
- Grouts and anchors.
- Concrete repair.
- Flooring systems.
- Protective coatings.
- Sealants.
- Waterproofing.
- Adhesives.
- Tile adhesives and grouts.
- Building products.
- Structural strengthening.

Note:
We endeavour to ensure that any information, advice or recommendation we may give in product literature is accurate and correct. However, because we have no control over where and how products are applied, we cannot accept any liability arising from the use of the products.