Aquaproof 1K Flex

Flexible acrylic cement modified one component waterproof coating

Description

Aquaproof 1K Flex is a one components; flexible polymer modified cementitious waterproof coating suitable for internal and external applications.

Aquaproof 1K Flex provides a hardwearing, seamless, waterproof membrane for potable water retaining structures, tanks, basements, foundations and culverts.

Applications

- Waterproofing for water retaining structures and reservoirs.
- Waterproofing of basements, roofs, 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

- Single component, need only water additions.
- Non-toxic, approved for use in contact with potable water.
- Fungus, mould resistant.
- 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.

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 Flex.

Technical Properties @ 25°C:	
Mixed density:	1.60 ± 0.05 g/cm³
Working time:	1 hr
Colour:	Grey powder
Mixing ratio:	3.6 ltr water/15 kg bag
Open time:	10 min
Initial setting:	4 - 5 hr
Application temperature:	5 - 45°C
Flow: Brushable consistency @ W/P Sprayable consistency @ W/P	 0.24 0.27
Minimum application thickness:	2 mm (with two coats)
Elongation at break: ASTM D412 (low speed rate)	> 10% @ thickness > 2 mm
Tensile adhesion strength: (on concrete) ASTM 4541-02	> 1.6 MPa
Water permeability: DIN 1048 (7 bars)	0%

Mixing

To ensure proper mixing, a mechanically powered mixer or drill fitted with suitable paddle should be used. Add the 3.6 litre 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 Flex 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.

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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 Flex 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 Flex 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 1K Flex, a mix of sand, cement and Cempatch SBR should be sprayed over Aquaproof 1K Flex as key. Addition rate of Cempatch SBR should be 10 litre per bag of cement.

Cleaning

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

Packaging

Aquaproof 1K Flex is available in 15 kg bags.

Coverage

Approximately 11.6 m²/15 kg for one coat @ 1 mm thickness.

Storage

Aquaproof 1K Flex 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, DCP Technical Department should be contacted for advise.

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Cautions

Health and Safety

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

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

Note:
We endeavor to ensure that any advice, recommendation or information we may give in product literature is accurate and correct. However, due to the fact that we have no direct or continuous control over where or how the products are applied, DCP cannot accept any liability either directly or indirectly arising from the use of DCP products, whether or not in accordance with any advice, specification, recommendation or information given by us.