Aquatek Super XA

High performance cement-based waterproofing slurry for waterproofing concrete surfaces with negative water pressure during application. Waterproofs the concrete through saturation of the capillaries.

• field of application

Waterproofing and protective coating for concrete constructions, both below and above ground. Basements, water reservoirs, water treatment plants, tunnels, canals, conduit pipes, ponds etc. can be permanently sealed with Aquatek Super XA.

• advantages

Durable
- Withstands negative or positive hydrostatic pressure.
- Protects concrete against seawater, wastewater and certain chemical solutions.
- Suitable for applications both below and above ground water table.
- Water vapour permeable.
- Superior adhesion.

Economical
- High yield.
- Fast application.

Simple application
- Ready to use - just add water.
- Apply to dampened substrates.
- Easy to applyby brush or spray equipment.
- Clean equipment with water.

Environmentally friendly
- Cement based.
- Solvent free.
- Potable water approved (WRAS test report M103437).

• description

Aquatek Super XA is a powder with a very high concentration of active ingredients, composed of Portland cement, selected silicas, chemically reactive ingredients and modifiers. When mixed with water and applied to a concrete surface, its active chemicals combine with the free-lime and the humidity, to form long chained insoluble crystalline complexes which block the capillaries and micro-fissures in the concrete, thus stopping water penetration.

• application

1. Substrate preparation

- Surfaces to be treated should be thoroughly cleaned and structurally sound. Remove all foreign materials such as paint coatings, defective renderings, cement laitance, oils, and other contaminants that may adversely affect the bond.
- Surfaces should be prepared by high-pressure water treatment or by abrasive sand or grit blasting. Dust and loose particles must be washed off with clean water.
- Repair cracks and damaged concrete with Omnitek RM Fiber.
- The application surface should be thoroughly dampened to control the suction and prevent rapid loss of water. There should be no free standing water left on the substrate.

2. Mixing

- Mix 25 kg powder of Aquatek Super XA with 12 to 16 litres water using an electrical mixer (400-600 rpm) - depending on the application method. Application by brush needs approx. 12 litres water and by spray equipment approx. 16 litres water.
- In case of high temperature during application, up to 20 l water can be used for product preparation in the initial blend. Never add more water to the blend when the initial set has started. When using 20 l of water, it is important to respect the dry powder consumption as mentioned on the Technical Data Sheet.
- The material should be mixed to a thick, creamy, lump-free consistency that will just support the weight of a stiff brush. Do not overmix.
- After mixing the product will experience false set, thus halving the pot life values. Remix each 5 minutes to extend the pot life to the values indicated in the technical data/properties table.
  DO NOT ADD WATER.

3. Application

- Apply Aquatek Super XA in 2 coats of 0,75 kg/m^2 powder with a brush or a spray gun.
- Apply the first coat to a pre-dampened surface. The second coat should be applied when the first coat is still green, but sufficiently stiff enough to take the second coat.
- Do not apply Aquatek Super XA if the ambient temperature is below 5°C or expected to drop below 5°C within 24 hours. Do not apply Aquatek Super XA to frozen substrates. Avoid applications in full glare sun or windy conditions.

4. Curing

- In warm or windy conditions, it is advisable to mist-spray the applied product with clean water after the initial set has taken place.
- In cold, humid or unventilated areas a longer curing period is to be foreseen or introduce forced ventilation to avoid condensation. Never use dehumidifiers during the curing period or within 28 days of completion of the work.

5. Cleaning and Maintenance

- Mixing and application equipment should be cleaned immediately with clean water. Mechanically remove hardened material.

6. Additional Information

- In case of application of finishes or additional layers on top of the surface treated with Aquatek Super XA, the surface needs to be cleaned and passivated according to the method described in the manual of technical procedures for the Aquatek Waterproofing System version 9/8/2007.
- Condensation may occur and could last for a considerable period after waterproofing with Aquatek Super XA and this in poorly ventilated and cold areas. The formation of condensation can be alleviated by increasing the ventilation and/or plastering the walls with a lightweight, cement-based plaster (please contact the De Neef Technical Department for application instructions).

- If Aquatek Super XA is used in potable water tanks, fish tanks or swimming pools, the surface must be washed down and thoroughly rinsed with clean water after a minimum of 14 days curing.
- Gypsum based plasters or water-vapour impermeable coating should not be applied onto the Aquatek Super XA coating, where constant negative pressure is present.

• technical data/properties

Property	Value	Norm
Density (powder)	1,75 kg/dm^3	
Hydrostatic pressure resistance • Positive pressure • Negative pressure	 10 bars 10 bars	Test KUL
Adhesion (28 days)	> 3,1 MPa	ISO 4624
Frost resistance	No damage detected	NBN B05-203
Resistance to de-icing salts	Resists	Test KUL
Depth of penetration	> 50 mm after 90 days	Test KUL
Pot life	30 minutes	
Final setting	60 minutes	
Max. grain size	0,5 mm	
Min. application temperature	5°C	
Max. application temperature	30°C	

(a) Typical values - all tests were executed under a conditioned temperature of 21°C.

• appearance

Grey powder.

• consumption

2 coats of approx. 0,75 kg powder/m^2 = approx. 1,50 kg/m^2 powder.
The coverage is influenced by the roughness of the substrate.

• packaging

- 25 kg bags with plastic liner.
  42 bags per pallet (1050 kg).
- 25 kg bag in metal pail.
  36 pails per pallet (900 kg).

• storage

Aquatek Super XA should be stored under cover, clear of the ground. Protect the materials from all sources of moisture and frost.

Rotate stock to assure that shelf life is not exceeded.

Aquatek Super XA can experience the phenomenon of false hardening of the bags, giving the impression that the product has perished. Especially the bags on the bottom rows of the pallet are susceptible to this phenomenon. False hardening does not impair the use or quality of the product. To identify whether a bag has experienced false hardening or not, take the bag and drop it once or twice onto a dry surface. The content of the bag will easily become loose if false hardening has occurred. If the bag remains hard, the product has perished and cannot be used.

Shelf life: bags 6 months, pails 12 months.

• health & safety

Aquatek Super XA is a cement based product and can therefore cause burns to skin and eyes, which should be protected during use. Always wear gloves and safety goggles. Wearing a dust mask is recommended. Treat splashes to eyes and skin immediately with clean water. Consult a doctor when irritation continues. If accidentally ingested, drink water and consult a doctor. For full information, consult the relevant Material Safety Data Sheet.

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