

Aquatek Elastic 2C

Flexible, polymer modified, 2-component coating for waterproofing of concrete and masonry.



• field of application

- Waterproofing of concrete and masonry which are susceptible to movements -under positive or negative water pressure- below or above the ground water table.
- Horizontal and vertical applications in water reservoirs, tunnels, caves, swimming pools, etc.

• advantages

Approved for use with potable water.

Durable

- Excellent adhesion.
- Water vapour permeable.
- Reduces carbonation.
- Crack bridging (up to 1,2 mm with Reinforcement Mesh).
- Permanent flexible.
- UV-resistant.
- Freeze-thaw resistant.
- Good chemical resistance against domestic waste water.

Economic

- Fast application.
- High yield.

Easy application

- Application by brush or spray equipment.
- Application to a damp substrate.
- Equipment can be cleaned with water.

Environmentally friendly

- Cement based.
- Solvent free.

• description

Aquatek Elastic 2C is a 2-component coating containing cement, selected silica's, fibres, modifiers and a water based acrylic liquid. Aquatek Elastic 2C cures into a flexible, waterproof coating which allows a movement up to 0,6 mm and up to 1,2 mm if reinforced with Reinforcement Mesh.

• application

1. Preparation of substrate

- Surfaces to be treated must be thoroughly clean and structurally sound. Remove all foreign materials such as paint coatings, defective renderings, cement laitance, oils, and other contaminants that may affect the bond adversely. Surfaces should be prepared by high-pressure water treatment or by abrasive sand and grit blasting. Dust and loose particles must be washed off with clean water. Repair cracks and damaged concrete first with Omnitek RM Fiber.
- The substrate must be thoroughly pre-dampened to prevent burning of the cement. The surface must be saturated without free-standing water.

2. Analysis of ascending salts

- In case ascending salts or efflorescence are found on the masonry substrate, a pre-treatment with Aquatek Sulfablock and/or Aquatek Saltstop needs to be made.
- A correct analysis of the type of salt is required prior to selection of the correct pre-treatment.
- Take a small sample of the salt deposit from the masonry surface in a cup and dissolve in distilled water (DIY grade).
- Insert the sulphate test strip. If the strip colours, the deposit is a sulphate salt deposit and Aquatek Sulfablock needs to be used.
- If the sulphate test strip does not colour insert the nitrate test strip.
- If the nitrate test strip colours, the deposit is a nitrate deposit and Aquatek Saltstop should be used.
- If the nitrate test strip does not colour, the deposit is another salt or contamination. Please contact your De Neef Representative for more information.

3. Mixing

- Mix the total quantity of powder with 3/4 of the liquid for 2 minutes with a slow speed electrical mixer (400-600 rpm) until a lump-free, slightly viscous slurry is obtained. Add the remaining liquid and remix 1 minute.
- Always use the total volume of to prevent colour variations and to obtain optimum membrane properties.

4. Application

- Pre-damp the treated surface with water. The surface must be dampened without free-standing water. Apply Aquatek Elastic 2C by brush or spray in minimum 2 layers of 1 mm thickness.
- Apply the first coat on the pre-damped surface in one direction and allow to cure for 1 hour at 20°C and longer at lower temperatures.
- When using spray equipment, the first coat needs to be brushed firmly into the surface.
- Apply the second coat when the first coat is sufficiently dry to support the second coat. Apply the second coat crosswise to the first layer. Pre-dampening the first coat is only allowed in extremely dry conditions. Condensation on the first coat needs to be removed before application of the second coat.

Application of Reinforcement Mesh

- Apply Reinforcement Mesh into the freshly applied first layer of Aquatek Elastic 2C.
- Roll down well.
- Fix with an additional coat of 0,5 mm Aquatek Elastic 2C.
- Let cure for 2-4 hours before application of the final coat.
- Minimum width of Reinforcement Mesh is 20 cm.
- Do not apply Aquatek Elastic 2C if the ambient temperature is below 5°C or expected to drop below 5°C within 24 hours.

5. Curing

- In warm or windy conditions, make the surface wet with water fog or wet tamping until full cure. In cool conditions cover with insulated tarpaulin or other insulating material. Protect against rain until full cure.
- In cool, damp or badly ventilated spaces, it may be necessary to allow for a longer curing time. To avoid condensation, extra ventilation will be necessary. Never use dehumidifiers during the curing period or within 28 days of completion of the work.

6. Cleaning and maintenance

- Mixing and application equipment should be cleaned immediately with clean water. Hardened material needs to be removed mechanically.

7. Overpainting

- In applications with constant negative water pressure, Aquatek Elastic 2C may not be over-painted. In other circumstances the coating can be over-painted with Omnitek Paint EC or solvent free elastic paints.
- Remove negative water pressure during the application to obtain a good adhesion.
- Aquatek Elastic 2C has limited impact resistance. In case of refilling soil, the surface needs to be suitably protected against mechanical damage.
- As result of the limited wear resistance of Aquatek Elastic 2C, only restricted pedestrian traffic on horizontal surfaces is allowed.
- Condensation may occur after waterproofing with Aquatek Elastic 2C in poorly ventilated or damp areas. This can be reduced by increasing the ventilation.
- When Aquatek Elastic 2C is applied in drink water reservoirs, swimming pools, ponds, the surface should be thoroughly rinsed with clean water.
- Aquatek Elastic 2C is not suited for prolonged contact with hydrocarbons such as petrol, fuel oil, etc.
- Aquatek Elastic 2C should be allowed to cure for a minimum of 7 days before filling the structure with water.

• technical data/properties

Property	Value
Density (mixture)	1,70 kg/dm ³
Positive hydrostatic pressure resistance	15 bars
Negative hydrostatic pressure resistance	15 bars
Elongation to break (28 days)	
• dry without Reinforcement Mesh	15%
• dry with Reinforcement Mesh (50 g)	39,8%
• wet without Reinforcement Mesh	12%
• wet with Reinforcement Mesh (50 g)	28%
Adhesion (28 days)	2,3 N/mm ²
Adhesion to wet concrete (EN 13578)	1,7 N/mm ²
Maximum grain size	0,6 mm
Freeze-thaw resistance (ISO/DIN 4846.2)	No scaling after 50 cycles
Equivalent air layer thickness S _d H ₂ O	2,2 m
Equivalent air layer thickness S _d CO ₂	91 m
Resistance to chloride diffusion (G0008-2002)	No chloride diffusion detected
Layer thickness per layer	1 mm
Pot life	30-45 minutes
Initial set	1 hour
Final set	2-4 hours

• appearance

Grey or white.

• consumption

Approximately 1,45 kg powder/m²/mm.

- Two layers of 1 mm : approx. 2,9 kg powder/m².
- Total (powder & liquid) : approx. 4 kg/m².




For the application of the mesh an additional coverage of 0,5 kg/m² of powder is necessary.

The coverage is influenced by the roughness of the substrate.

• packaging

Sets of 32 kg

- 23 kg bag with plastic liner + 9 kg pail.
- 42 bags per pallet (1050 kg)/42 pails per pallet (378 kg).

• storage	<p>Aquatek Elastic 2C should be stored under cover, clear of the ground. Protect the materials from all sources of moisture and frost.</p> <p>Shelf life: 1 year.</p>																												
• accessories	<p>Must be purchased separately</p> <ul style="list-style-type: none"> • Aquatek Brush. • Reinforcement Mesh. • Sulphate test strips. • Nitrate test strips. 																												
• health & safety	<p>Aquatek Elastic 2C is a product based on cement and can therefore cause burns to skin and eyes, which should be protected during use. Wear gloves and protective eye shields. Wearing a dust mask is advised.</p> <p>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.</p> <p>For full information, consult the relevant Material Health and Safety Data Sheet.</p>																												
• certification	<table border="1"> <tr> <td colspan="2" style="text-align: center;">  </td></tr> <tr> <td colspan="2" style="text-align: center;"> De Neef Conchem nv/sa Industriepark 8 B-2220 Heist-op-den-Berg Belgium 07 </td></tr> <tr> <td colspan="2" style="text-align: center;"> 0370-CPD-1045 EN 1504-2 Surface protection products Coating </td></tr> <tr> <td>Minimum layer thickness</td><td>2,0 mm</td></tr> <tr> <td>Permeability to CO₂</td><td>S_d > 50 m</td></tr> <tr> <td>Water vapour permeability</td><td>Class 1</td></tr> <tr> <td>Capillary absorption and permeability to water</td><td>w < 0,1 kg/m².h^{0.5}</td></tr> <tr> <td>Thermal compatibility</td><td>> 1,5 N/mm²</td></tr> <tr> <td>Resistance to thermal shock</td><td>> 0,8 N/mm²</td></tr> <tr> <td>Crack bridging ability</td><td>Class A3</td></tr> <tr> <td>Adhesion strength by pull off test</td><td>> 1,5 N/mm²</td></tr> <tr> <td>Reaction to fire</td><td>B s1 d0 B_{fl} s1</td></tr> <tr> <td>Adhesion on wet concrete</td><td>No visual defects</td></tr> <tr> <td>Dangerous substances</td><td>Complies with 5.3</td></tr> </table>			De Neef Conchem nv/sa Industriepark 8 B-2220 Heist-op-den-Berg Belgium 07		0370-CPD-1045 EN 1504-2 Surface protection products Coating		Minimum layer thickness	2,0 mm	Permeability to CO ₂	S _d > 50 m	Water vapour permeability	Class 1	Capillary absorption and permeability to water	w < 0,1 kg/m ² .h ^{0.5}	Thermal compatibility	> 1,5 N/mm ²	Resistance to thermal shock	> 0,8 N/mm ²	Crack bridging ability	Class A3	Adhesion strength by pull off test	> 1,5 N/mm ²	Reaction to fire	B s1 d0 B _{fl} s1	Adhesion on wet concrete	No visual defects	Dangerous substances	Complies with 5.3
																													
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