

# Aquatek Impercem

Modified, fine mortar for waterproofing of concrete and masonry.



## • field of application

- Waterproof coating for concrete and masonry, internal as well as external, under and above the ground water table.
- Horizontal and vertical applications such as water reservoirs, tunnels, basements, swimming pools, etc.

## • advantages

### **Durable**

- Excellent adherence.
- Waterproof mortar.
- Water vapour permeable.
- Withstands negative or positive hydrostatic pressure.
- Freeze-thaw resistant.

### **Economical**

- Fast setting.

### **Easy application**

- Ready to use - just add water.
- Can be applied to a damp substrate.
- Easy application by brush or spray.

### **Environmentally friendly**

- Cement based.
- Solvent free.

## • description

Aquatek Impercem is a cement-based powder containing selected silica's and modifiers. When mixed with clean water Aquatek Impercem provides a fine, fast setting, waterproof coating for concrete and masonry.

## • 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 abrasive sand or grit blasting (dust must be washed off with clean water) or by high-pressure water treatment.
- Repair damaged areas with Omnitek RM Fiber or Omnitek XL Fiber depending on the depth of the area to be repaired.

## **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 25 kg powder Aquatek Impercem with 6 litre water with a forced-action spiral mixer (400-600 rpm) for 3 minutes to an uniform consistency. Let the mix stand for 5 minutes and remix to achieve a lump free consistency. Do not mix more than can be used in 35-40 minutes (at 20°C). Do not over mix.

## **4. Application**

- The substrate must be dampened with water before application starts (do not saturate).
- Apply with a brush or spray in minimum 2 layers of 1,5 kg powder per m<sup>2</sup> (min. 3 kg powder per m<sup>2</sup>).
- Apply the first layer on the dampened substrate in a horizontal stroke and allow curing for at least one night.
- Damp the first layer and apply the second layer in a vertical stroke.
- Spray applications require brushing of the first layer to properly fill voids and achieve uniformity.
- Do not apply Aquatek Impercem if the ambient temperature is below 5°C or expected to fall below 5°C within 24 hours.

## **5. 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 conditions cover with insulated tarpaulin, polystyrene or other insulating material. Protect the surfaces against frost and rain until final setting has taken place.
- In cold, humid or unventilated areas it may be necessary to leave the application for a longer curing period or to introduce forced air movement to avoid condensation. 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. Remove hardened material mechanically.

## **7. Additional Information**

- Gypsum based plasters or water vapour impermeable coatings should not be applied onto the Aquatek Impercem, where constant negative pressure is present.
- As result of limited wear-resistance Aquatek Impercem allows restricted pedestrian traffic on horizontal surfaces.
- Condensation may occur after application of Aquatek Impercem in poorly ventilated and damp areas. Increasing the ventilation and/or plastering with a lightweight, cement plaster can alleviate this.
- If Aquatek Impercem is used in potable water tanks, fish tanks or swimming pools the surface should be washed down with clean water.

• **technical data/properties**

Property	Value
Density (mixture)	2,25 kg/dm <sup>3</sup>
Compressive strength (28 days)	approx. 44 MPa
Adhesion (28 days)	approx. 3,5 MPa
Flexural strength (28 days)	approx. 12 MPa
Equivalent air layer thickness $S_{d\ H_2O}$	0,19 m
Layer thickness per layer	1 mm
Pot life	1 hour
Recoat time	Overnight (min 12 hours)
Minimum application temperature	5°C
Maximum application temperature	30°C

• **appearance**

Grey or white powder.

• **consumption**

2 layers of 1 mm thickness: approx. 3 kg/m<sup>2</sup> (approx. 1,5 kg/m<sup>2</sup>/mm powder). The consumption depends strongly on the surface texture.

• **packaging**

25 kg bags with plastic liner.  
42 bags per pallet (1050 kg).

• **storage**

Aquatek Impercem should be stored under cover, clear of the ground in a dry location. Protect the materials from moisture and frost.  
Shelf life: 1 year.

• **accessories**

**Must be purchased separately**

- Aquatek Brush.
- Sulphate test strips.
- Nitrate test strips.


• **health & safety**

Aquatek Impercem is a cement based product and can therefore cause burns to skin and eyes, which should be protected during application. 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.

For full information, consult the relevant Material Safety Data Sheet.

• **certification**

	
De Neef Conchem nv/sa Industriepark 8 B-2220 Heist-op-den-Berg Belgium 08	
0370-CPD-1045 EN 1504-2 Surface protection products Coating	
Minimul layer thickness	2,0 mm
Water vapour permeability	Class 1
Capillary absorption and permeability to water	$w < 0,1 \text{ kg/m}^2 \cdot \text{h}^{0,5}$
Adhesion strength by pull off test	$> 1,5 \text{ N/mm}^2$
Dangerous substances	Complies with 5.3

*All data mentioned on this technical data sheet are product descriptions. They are the result of general experience and experiments and don't take any specific application into account. No further demands may be derived from these data. The manufacturer has the privilege to implement technical changes, which result from new research concerning the material composition and form. To verify that you are holding the latest version of this Technical Data Sheet, please visit [www.deneef.com](http://www.deneef.com).*

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