

### MONNELI KRETESIL NT

*Elastomeric Cementitious Waterproofing Mortar*

#### Product Description

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A two component acrylic modified cementitious waterproofing mortar composed of high quality cement, silica sand, special hydrophobic agents in powder form (component A) and specially formulated co-polymer acrylic agent in liquid form (component B). It can be applied on concrete, bricks, cement plasters, etc.

Apart from waterproofing, KRETESIL NT plugs the support and avoids the noxious substances migration which makes it an ideal solution for the waterproofing treatment of potable water tanks.

#### Uses

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KRETESIL NT is primarily used for waterproofing surface treatments of concrete or masonry water tanks designed to contain drinking water. It is non-toxic and easy to apply, with excellent bonding to concrete and masonry.

Can also be used for the following:

- Waterproofing coating on roof
- Protection against brackish water
- Coating seawater channels
- Waterproofing and protective coating for marine structures
- Wet areas (kitchens, toilets, balconies, etc.)

#### Advantages

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- Excellent bonding to concrete and block work
- Economical and effective product for waterproofing drinking water tanks
- Easy to apply by brush or spatula
- Non-toxic which makes it suitable for contact with potable water
- Can be used to waterproof against positive and negative pressure
- UV Exposure and long term weathering resistant.

#### Instructions for Use

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##### Surface Preparation

The surface of the concrete shall be sound, clean and uncontaminated.

This preparation shall be such as to leave a sound exposed concrete surface free from dust, loose particles and any deleterious matter. If the concrete surface is defective or has laitance, it must be cut back to a sound base.

Moss and lichen must be removed physically followed by treatment with fungicidal wash. After treatment, it must be washed down thoroughly with clean water.

In addition, make sure that all surfaces must be damp but not totally wet before progressing the work.

##### Crack Treatment

Shrinkages and non-moving structural cracks less than 0.3mm shall be filled with a pre-treatment strip of KRETESIL NT directly bridging over the crack.

Static cracks that are greater than 0.3mm shall be repaired by chiseling the crack into a V-shape, to a depth and width of 25mm and priming it with Primer A18 followed by the application of COLMEF's cementitious repair material.

Voids and honeycombs shall be patched with BETOFINISH C, a single component polymer modified fairing coat, allowing the area to cure before applying the membrane.

##### Right angle bends

All right angle bends must have a coving detail installed. In areas where parapet walls, columns, pipe penetrations are present, a 45° coving fillet shall be made at all corners using BETOCEM FIBER, a fiber reinforced shrinkage controlled mortar for concrete repair to the water saturated cured surface.

All other angles, joints, protrusions and stress joints should be pre-treated with a heavy application of KRETESIL NT extending 150mm on both sides of the coving.

### **Movement Joints**

Expansion and movement joints should be sealed with ELASTOSEAL PU25, a polyurethane sealant. Allow to cure before the application of KRETESIL NT.

### **Priming**

Highly porous concrete or concrete containing micro-silica will require priming with PRIMER A18, from Colmef, a synthetic, high penetrating primer.

The primer shall be applied at a rate of 5-6 m<sup>2</sup>/L and left to achieve a tack-free condition before applying the top coat. A second coat of primer may be required if the substrate is excessively porous.

### **Mixing**

KRETESIL NT is supplied in a kit of pre-measured two components. Add the 25 kg bag of powder into a clean container containing 8 Liter of liquid (Part B). Mix the product thoroughly using a slow speed mechanical mixer, or electric drill fitted with a suitable paddle at a rate of 200-300rpm. Mix to obtain a homogeneous mixture free from clots. In case of spray application, please contact the technical service department for the right recommended spraying machine.

### **Application**

KRETESIL NT can be applied with brush or with spatula in two consecutive coats onto the surface. Before the application of KRETESIL NT, make sure that the preceding treatment has already set, however it must not be completely hardened. Finishing can be done with a trowel.

### **Curing & Protection**

Surfaces treated with KRETESIL NT must be kept damp and must be protected from the drying action of direct sunlight for a minimum period of 3 days after application.

Protect all treated surfaces from wind and frost, by covering with plastic sheeting, damp hessian or equivalent.

### **Cleaning**

Clean the tools immediately after use with clean water. During work, it is recommended to place the tools in water while not in use. Cured materials should be mechanically removed.

### **Recommendations**

- KRETESIL NT is a cement product, so all the precautions for concrete practice must be followed.
- Do not apply at the temperature below to +5°C.
- For application in drinking water tanks, wash the applied coat thoroughly with plenty of water while scrubbing the surface with sponge before using the tank.

### **Applicable Standards**

- BS 6920 Part 1, 2005
- BS 1881 Part 5, 1983
- DIN 1048
- ASTM D412, D2240, E96
- ASTM E 96

### **Consumption**

Advisable consumption for 2mm thickness:

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|-----------------------------|---------------------------|
| ■ Against static water      | 3 - 4 kg / m <sup>2</sup> |
| ■ Continuous water pressure | 4 – 6 kg/ m <sup>2</sup>  |
| ■ For negative pressure     | 6 – 7 kg/ m <sup>2</sup>  |

### **Packaging**

KRESTESIL NT supplied in two components; 25kg cementitious bag and 8 Liter of Acrylic latex.

## Technical Data

Properties	Results
Appearance	Cementitious powder
Color	Grey, white
Wet density at 25°C	1.75 kg/L
VOC	6.0 g/L
Elongation (ASTM D412)	Up to 20%
Tensile strength (ASTM D412)	> 0.7 N/mm <sup>2</sup>
Adhesion to concrete	>1 N/mm <sup>2</sup>
Shore A hardness (ASTM D2240)	65
Chloride Ion diffusivity	Nil
Water vapour transmission (24 hours) (ASTM E96 – 95)	1.09 g/h.m <sup>2</sup>
Crack bridging (ASTM C1305)	0.5mm
pH at 25°C	10 -11
Service temperature	from –5°C to +80°C
Water penetration resistant	Up to 1.5 bars on 2 mm thick coating
Maximum thickness per coat	1 mm
Workability time at 25°C	>30 minutes
Toxicity	Non-toxic
Harmless EC 88/379	No

All values are subject to 5-10 % tolerance

## Storage

Should be stored under cover away from extreme heat, direct sunlight. Shelf life is 12 months if stored tightly sealed containers under good storage conditions.

## Health & Safety

KRETESIL NT is a cement-based product.

During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.

In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.

If ingested, obtain medical attention immediately. Do not induce vomiting.

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