



# DUFLEX

## TWO-COMPONENT FLEXIBLE CEMENT MORTAR FOR WATERPROOFING

**DUFLEX** is a complete user-friendly cementitious waterproofing system, consisting of two component factory blended package in a strict quality control environment, to ensure optimum results after use. The two components are mortar based on cements, fine-grain aggregates with special additives and synthetic polymers in water dispersion. After curing it forms a flexible layer impermeable to CO<sub>2</sub> SO<sub>2</sub> Chlorides and Sulphates.

### USES

- Used for interior and exterior waterproofing of cement supports and masonry against humidity and cellar waters, against stagnant water etc.
- It can be used above or below grade, to waterproof cisterns, tunnels, reservoirs, basements, retaining walls.
- Waterproofing positive pressure like swimming pools, purification plants plinths, dams etc.
- Waterproofing negative pressure like galleries, humid rooms, elevator shafts etc.

### ADVANTAGES

- Minimum surface preparation needed and low labor costs.
- Waterproof - suitable for water retaining structures.
- Excellent barrier to carbon dioxide, chloride ions and water. Allows water vapor to escape from the structure.
- High resistance to the effects of long term weathering, durable in all climatic conditions including UV attack.

## APPLICATION

### PREPARING THE SUBSTRATE

To ensure good adhesion, special care must be taken when preparing the substrate. The surface to be treated must be perfectly clean and solid. This can be achieved by scabbling, sandblasting or washing with high pressure hoses.

- Cement or concrete surfaces must be cleaned of all dust, laitance, traces of form release oil, mould, loose sections and rust.
- Re-form or repair any heavily degraded areas using concrete repair materials.
- Thoroughly soak the substrate with water, removing any excess with compressed air or rags so that the substrate is saturated but the surface is dry.

### MIXING

- Pour component B (liquid) into a suitable clean container, then slowly add component A (powder) while stirring with a mechanical mixer.
- Carefully mix the **DUFLEX** for a few minutes, making sure to mix in any imperfectly dispersed powder from the walls and bottom of the container.
- Mix until the product is perfectly smooth and homogenous using a low-speed mechanical stirrer in order to avoid any excessive incorporation of air.

Do not prepare the mix by hand.



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## APPLYING THE MIX

Using a trowel or brush spread the mortar onto the substrate in maximum layers of 2mm per coat.

- Apply a second layer when the first has hardened (about 6-8 hours).
- In areas with hairline cracks or subject to heavy stresses, it is advisable to insert a square-mesh (e.g 4x4mm) fiber glass or synthetic-fiber net into the DUFLEX.
- DUFLEX must be applied within 45 minutes of mixing at +25°C.
- The surface maybe smooth off with the same trowel a few minutes after application. Precautions to be taken during and after the application of DUFLEX.
- No special precautions need to be taken when the temperature is around +25°C.
- In hot weather it is advisable to keep the material out of the sun before use (powder and liquid)
- After application, in particularly dry, warm or windy weather, it is advisable to protect the surface from rapid water evaporation.

## COVERAGE

1.25 – 1.35 kg/m<sup>2</sup> per coat of 1mm thickness

## HEALTH & SAFETY

Avoid contact with skin and eyes, provide adequate ventilation in working place to avoid inhalation of dust.

## CLEANING

Due to the high adhesive strength of **DUFLEX** even on metals, it is advisable to wash tools with water before the product sets. After setting, cleaning can only be achieved by mechanical means.

## TECHNICAL SPECIFICATIONS

Appearance	Fine grey (or white) powder
Color	Grey, Offwhite
Form	Slurry (after mixing)
Density	1.4 kg/liter (for powder) and 1.05 kg/liter (for liquid)
Compressive Strength	50N/mm <sup>2</sup> (after 28 days)
Flexural Strength	13N/mm <sup>2</sup> (after 28 days)
Working Time	45 minutes (at 25°C)
Water Absorption	3.6% water (boiling) submersion at 24 hours
Adhesion to concrete	2.7 N/mm <sup>2</sup>
Application method	Trowel/Brush/Spray (after mixing)
Storage	Keep materials out of sunlight and in dry conditions.
Shelf Life	1 year when properly stored
Packing	15kg dry compounds, 5kg liquid compound

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