Motex ®

Dry-Coat 511

Single component cementitious waterproofing mortar

About this product

Motex ®Dry-Coat 511 is a preblended, single component cementitious mortar which, when mixed with water, produces a durable, high performance grey waterproof coating, suitable for use on concrete, and dense concrete blockwork. It penetrates into the substrate and crystallises, blocking the passage of water. Dry-Coat is suitable for use on wet horizontal and vertical, internal and external surfaces, subject to positive or negative water pressures.

Features and benefits

- Uses high quality selected components
- Uses sulphate resistant cement: tolerates aggressive water
- Easy to mix and apply
- Can be applied by spray pump to cover large areas
- Excellent bond to damp or wet concrete
- Particularly suited to application on negative pressure side
- Impermeable to negative pressure up to 3 bars
- Resistant to thermal cycling
- May be overcoated with tiles, microporous paints or coatings.

Typical uses

Dry-coat is applied in two coats each from 1 mm to 2 mm thickness.

Suitable substrates:

- New, old or repaired concrete
- Dense concrete blockwork at least 28 days old
- Rendered dense brickwork at least 14 days old

Dry-Coat may be applied to walls, floors or soffits, including underground work in buildings (e.g. foundations, basements, car parks etc.) and in civil engineering.

Typical applications include:

- Waterproof coating: structures subject to positive and negative water pressure
- Waterproofing of water excluding structures

Do not apply more than 2 mm thick in one coat. Do not use on weak or friable substrates such as lightweight blocks, where the substrate is cracked, subject to movement or heavily trafficked.

Not to be used as a decorative finish.

Typical properties

The following test results were obtained in laboratory conditions at 20°C

Hardened density:	1900 kg/m³
Bond to dense block or concrete:	> 1.0 N/mm²
Bond to concrete after thermal cycling:	> 1.0 N/mm²
Interlayer bond strength:	> 1.0 N/mm²
At 2 mm thickness, no leaks at negative pressure of:	1 bar at 7 days 2 bars at 14 days 3 bars at 28 days

	Compressive strength	Tensile strength	Elastic Modulus
7 days	19N/mm²	2.5N/mm²	
28 days	20N/mm²	3.0N/mm²	7.6kN/mm²

Preparation

All substrates must be sound and free of all contamination including laitance, paints, coatings, oil, grease and dust. Concrete and concrete blockwork surfaces must be roughened by suitable mechanical means such as grit blasting, high pressure water jetting or needle gunning. New concrete must be fully cured for at least 14 days. Do not use a permanent curing membrane. Pores in concrete surfaces, concrete block joints and small cavities in concrete blocks should be raked out, saturated with water and filled flush with Motex® Dry-Rend. Where pores are weeping, fill with Motex® Dry-Fast Mortar. Form rounded skirtings at junction of walls and floor and form vertical covings in comers between walls with Motex® Dry-Rend.

Thoroughly dampen the whole area with clean water before applying Dry-Coat. All ancillary works such as leak sealing, treatment of cracks and joints, sealing of pipes and fixtures should be carried out in accordance with the Specification. Contact Technical Services for details.

Mixing

Use only clean, potable water. Water addition per 25 kg bag: 6.5 litres up to 8 litres

The consistency of Dry-Coat is affected by temperature: In colder weather (5 - 20°C) use less water In warmer weather (20 - 35°C) use more water up to maximum of 8 litres

Mix Dry-Coat in a forced action mixer such as a Mixal or Creteangle or in a clean bucket using a paddle and a slow speed drill at a speed not exceeding 500 rpm. Pour about 6 litres of water into a clean bucket. Add powder gradually while mixing. Mix for at least 2 minutes adding water mixing. Mix for at least 2 minutes adding water to produce a smooth and homogeneous brushable consistency.

Do not exceed 8 litres of water addition.
Remix after 10 minutes if required.

Application

Hand application

Use a stiff bristle brush to apply a first coat of Dry-Coat over the surface at a minimum rate of 2kg/m², spreading out evenly and ensuring full overlap between brush applications.

Leave for 2 to 8 hours to reach initial set*. Dampen the surface and apply the second coat at a rate of 1 to 2 kg/m² at right angles to the first oat to ensure a pinhole free coating.

Machine application

Use a Putzmeister Sprayboy or similar machine. Machine mix the mortar for at least 5 minutes. Apply the mixed Dry-Coat by spray pump to the required thickness (max. 2mm in one pass)

The second coat should be applied as soon as the first layer has reached initial set* (approx. 6 hours at 20°C).

Application temperature: 5°C to 33°C

Do not apply to frozen surfaces or when frost is forecast within 24 hours.
Do not apply in direct sunlight or on a hot substrate.

* Note: Times quoted need to be extended at lower temperatures and reduced at higher temperatures.

Finishing

Dry-Coat is normally left with a brushed finish.

Curring

Normal concrete curing methods are recommended. Do not use until 4 days after application (at 20°C). When applying in confined spaces, cure for 4 days then ensure sufficient ventilation to prevent condensation.

Pot life

Coverage and yield

Approx. 3.5 to 4 kg per m² when applied at 2 mm thickness. Yield 13 litres per 25 kg bag.

Storage and shelf life

Store in cool, dry conditions.
Shelf life in correct conditions is 12 months.

Health and safety

Contains Portland Cement.

Contact with mixed Dry-Coat may cause irritation, dermatitis and burns.

Contact between the powder and body fluids (e.g. sweat and eye fluids) may also cause irritation, dermatitis or burns.

There is a risk of serious damage to eyes. Avoid raising and inhaling dust.

Wear suitable protective clothing, gloves and eye/face protection.

In case of contact with eyes, rinse immediately with plenty of clean water eyes, rinse immediately with plenty of clean water and seek medical advice.

When contact with skin occurs, wash immediately with plenty of clean water.

Keep out of reach of children.

For further information, contact out Technical Services Department.

Technical service

We can provide technical service at the specification stage and/or during application through our Technical Department or Laboratory. Detail specification or further information can be provided for specific projects or more general works. Site visits and on-site demostrations can be arranged on request.

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