

# MasterEmaco® N 5100

**Cementitious polymer modified thin layer fairing mortar**

## DESCRIPTION

**MasterEmaco N 5100** is a concrete-grey, ready-to-use mortar based on hydraulic binders, high grade quartz sands and modified with synthetic polymers. It contains no chlorides or other salts that might cause corrosion or blooming.

## RECOMMENDED USES

**MasterEmaco N 5100** is especially suitable for levelling uneven surfaces, filling honeycombs and pin holes. It can be used as a topping (render) of up to 3mm thick to face up masonry.

**MasterEmaco N 5100** is an ideal substrate for coatings. It is also used for laying ceramic and concrete tiles, and as a thin bed mortar for the placement of lightweight blocks, insulation boards and hollow masonry units (HMU).

**MasterEmaco N 5100** is ideal for thin resurfacing of damaged concrete surfaces, such as in rain damaged slabs and for use in non-moving crack repairs.

## FEATURES AND BENEFITS

- **Economical** – allows thin layer patching and Feather edging possible
- **Strong adhesion** – Use as base layer for coatings, tiles and panels
- **Plastic thixotropic material** - Quick and easy to apply by trowel vertically and overhead
- **Very durable** - Weatherproof and Shrinkage compensated
- **Fast return to service** - High early strength and excellent bonding

## PERFORMANCE DATA

Compressive Strength@ 28Days	40 MPa
Flexural strength@ 28 Days	7.0 MPa
E-Modulus	12.0 GPa
Bond (to substrate)	> 2.5 MPa
Co-efficient of thermal expansion (ASTM C 531)	13 x 10 <sup>-6</sup> m/m/°C
Working Time in Minutes @20°C	50
@30°C	25

*If longer working time is required, a small amount of water can be added (maximum 2%) before the mix starts to set, e.g. by wetting the trowel with water*

## PROPERTIES

Supply form	Powder
Water demand per 25Kg bag	Up to 5 litres
Colour	Grey
Density (mixed)	2.0 kg/litre
Storage temperature	5 - 35°C
Effect of humidity	Same as cement
Application temperature	not below 7°C
Physiological effects	Same as cement
Toxicity	Non-toxic
VOC Content: (SCAQMD: 304 - 91)	7g/L

## APPLICATION

### Substrate Condition

Surfaces to which **MasterEmaco N 5100** mixtures are to be applied, should be clean, sound and free of dust and loose particles.

Cement laitance, oil, grease, mould release oil or curing compound must be removed from concrete surfaces by using wire brush, bush hammer, scabber, grit blasting or other means. Ensure that steel rebars are also clean from grease, oil or rust. When repairing spalled or deteriorated concrete, ensure that the concrete has been cut back to sound material.

Steel surfaces should be degreased with a suitable solvent or treated by grit blasting. In many cases where corrosion is absent, wire brushing to a clean bright surface is sufficient.

All absorbent surfaces to be treated with **MasterEmaco N 5100** mortars must be thoroughly dampened to saturate all pores. During application, the temperature of the substrate should not be below 7°C.

To avoid too high surface temperatures, it is advised to shade areas for the period of application.

Grooves more than 3mm deep should be prefilled with **MasterEmaco R 5200CI**.

# MasterEmaco<sup>®</sup> N 5100

## Mixing

Pour water into a suitable pail and add whilst mixing continuously until a homogeneous, lump-free mix is obtained.

The amount of water to be added is highly dependent on ambient temperature and relative humidity. In hot and dry climates, slightly higher amounts of water may be necessary, the contrary in cold and humid climates.

Use a low speed stirrer with a suitable mixing paddle to entrap as little air as possible.

Do not mix **MasterEmaco N 5100** with additional cement, sand or aggregate.

**Priming** Is not required.

## Method of use

Apply the well-mixed **MasterEmaco N 5100** without delay to the prepared damp surface with a spatula or trowel; thin layers may be applied with a brush. A minimum temperature of 7°C is essential. Layers up to a maximum of 3mm per coating can be applied.

If **MasterEmaco N 5100** is used as an adhesive, either spot or full surface bonding can be used. Bring the material being bonded into the correct position and press down firmly.

Depending on the finish desired, treat the surface of **MasterEmaco N 5100** after it starts to set with a foam or sponge trowel.

## ESTIMATING DATA

A 25kg bag of **MasterEmaco N 5100** mixed with 5 litres of water yields 15 litres (0.015m<sup>3</sup>), therefore material requirement is 5kg/m<sup>2</sup> @ 3mm thickness.

## PACKAGING

**MasterEmaco N 5100** is available in 25kg bags.

## SHELF LIFE

**MasterEmaco N 5100** has a shelf life of 12 months. Store out of direct sunlight, clear of the ground on pallets protected from rainfall.

## PRECAUTIONS

For the full health and safety hazard information and how to safely handle and use this product, please make sure that you obtain a copy of the Master Builders Solutions Material Safety Data Sheet (MSDS) from our office or our website.

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