

MasterEmaco[®] N 303 (formerly known as Emaco R 303)

Cementitious trowel applied polymer modified reprofiling mortar

DESCRIPTION

MasterEmaco N 303 is a non-structural, single component, polymer modified, repair and reprofiling mortar. **MasterEmaco N 303** when mixed with water is a mortar that contains special cements, graded sands, selected polymers to allow the mortar to be hand or trowel applied in thicknesses up to 10 mm.

RECOMMENDED USES

- **MasterEmaco N 303** is used for the non-structural repair of concrete elements like balconies edges, building facades, parapet walls, precast panels, and beam edges.
- **MasterEmaco N 303** is ideal for general, non-structural patch repairs where high build properties allowing up to 10 mm thickness in one layer are required.
- **MasterEmaco N 303** can be applied as a smoothing or levelling coat from 5 mm thick on large vertical and overhead areas to achieve a more aesthetic finish e.g. prior to painting.

FEATURES AND BENEFITS

- **Shrinkage compensation** – To minimise crack tendency and extend life of repair.
- **Smooth, creamy, non-slump mortar** – Easy to create profiles and corners without formwork
- **Good strength development** – Exceeding requirement of Class R1 of EN1504 part 3

PROPERTIES

Appearance	Grey powder
Layer thickness	Min. 5mm Max. 10mm
Water powder ratio	0.19
Density	Approx. 1.9 g/cm ³
Temperature for application (substrate and material)	Between +5°C and +35°C
Compressive strength - after 1 days - after 28 days ASTM C109	≥ 5MPa ≥ 25 MPa
Working life	2.5 hours @ 25°C

	1.5 hours @ 40 °C
Setting time	8 hours @ 25°C 6 hours @ 40 °C
VOC Content SCAQMD 304-91	6g/L

Hardening times are measured at 21°C ± 2°C and 60% ± 10% relative humidity. Higher temperatures will reduce these times and lower temperatures will extend them. Technical data shown are statistical results and do not correspond to guaranteed minima. Tolerances are those described in appropriate performance standards

APPLICATION

Surface preparation - Concrete must be fully cured, clean and sound to ensure good adhesion. All loose traces of concrete or mortar, dust, grease oil, etc. must be removed. Damaged or contaminated concrete should be removed to obtain a keyed surface. Non-impact/ vibrating cleaning methods, e.g. grit or high water pressure blasting are recommended. Aggregate should be clearly visible on the surface of the concrete structure after surface preparation. Cut the edges of the repair vertically to a minimum depth of 5 mm. If reinforcing steel is visible, clean to a minimum grade of SA 2 according to ISO 8501-1 / ISO 12944-4.

Priming - The prepared substrate should be pre-soaked, preferably for 24 hours, but at least 2 hours before applying **MasterEmaco N 303**. The surface must be saturated surface dry, but without standing water.

Always apply **MasterEmaco N 303** mortar wet-on-wet if the material is to be built up in layers..

Mixing – Use only full bags and damaged or opened sacks should not be used. Mix **MasterEmaco N 303** with a suitable paddle attached to a powerful, slow speed electric drill for 3 minutes until a lump free, plastic consistency is achieved. Only use clean water. Mixing water needed: 4.6 to 4.75 litres per 25kg bag depending upon consistency required. (Use stiffer consistency for overhead and vertical patching application and softer more creamy consistency for use as a levelling coat at 3mm thick). Allow the mortar to rest for 2 - 3 minutes and then remix briefly, adjusting the consistency as required. NB: Never exceed the maximum water demand.

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Application - The minimum temperatures must be maintained during application and for at least 12 hours thereafter for optimum curing of the product. The surface must be mat-damp, but without standing water. **MasterEmaco N 303** can be hand or trowel applied. Apply mixed product directly to the prepared damp substrate, or wet on wet onto the primed surface. A thin scrape coat or contact layer before building up to the required thickness, wet on wet, will improve the wet adhesion and cohesion of the mortar. Apply to the desired layer thickness of 3 to max. 10 mm.

Smoothing with a trowel or finishing by float or sponge can be done as soon as the mortar has begun to stiffen, typically after approximately 45 - 60 minutes at 20°C.

In these environmental conditions, **MasterEmaco N 303** can be over-coated, after 7 days, with **MasterProtect** Coatings as required.

NB: At lower temperatures and/or higher humidity these times will be extended

CURING

MasterEmaco N 303 has been formulated to

withstand too rapid water loss under normal conditions. In high temperatures with low humidity and windy conditions, repairs should be cured by application of a suitable BASF curing compound or cover with plastic sheeting in order to avoid plastic shrinkage cracking

ESTIMATING DATA

One 25 kg bag mixed has a volume of approximately 17L

PACKAGING

MasterEmaco N 303 is available in 25kg bags.

SHELF LIFE

MasterEmaco N 303 has a shelf life of 12 months. Store inside and protect from contact with water.

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 BASF Material Safety Data Sheet (MSDS) from our office or our website.

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STATEMENT OF RESPONSIBILITY (Disclaimer)

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NOTE

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