

EMACO™ R303

Single component polymer modified re-profiling mortar for concrete surfaces

Description

EMACO R303 is a single component polymer modified re-profiling mortar for use as a repair cosmetic mortar. When mixed with water, as directed, a fine grey trowellable mortar results which can readily be applied to fill in pores, blowholes and blemishes on a concrete surface.

EMACO R303 is specially formulated to produce a shrinkage compensating mortar with no cracking when applied in a thin section. Adhesion to concrete and flexibility are excellent.

Uses

As a re-profiling mortar to cover and make good blemishes in concrete surfaces such as honeycombing, blowholes, defects caused by 'sand runs', patch repairs, shutter movement and grout loss.

- Preparatory treatment to concrete to receive a thin film protective coating.
- To produce a uniform surface over repaired areas.
- To repair concrete within cover zone.

Advantages

- Precision made consistent performance.
- Requires only the addition of mixing water.
- Shrinkage compensating.
- Excellent adhesion to concrete.
- Flexible, resistant to cracking.
- Smooth, easily produced finish.
- Low permeability
- Excellent resistance to freeze / thaw action and carbonation
- Ingress of water borne salts, such as chloride and atmospheric / chemical attack.
- Subsequent paint coats can be applied with greater economy.

Typical properties

Aspect	: Free flow powder
Water/powder Ratio, by weight	: 0.19-
Fresh wet density	: 1.95 ± 0.05 at 25°C
Working Life	: 150 Minutes at 25°C : 100 Minutes at 40°C
Setting Time	: 8 Hours at 25°C : 6 Hours at 40°C
Compressive strength (ASTM C109)	: 50 Kg/cm ² at 24 hours : 250 Kg/cm ² at 28 days
Adhesive bond strength to concrete (ASTM D 4541)	: >15 Kg/cm ² at 28 days

Specification Clause

The high performance re-profiling mortar shall be EMACO R303, a single component polymer modified mortar which can be applied from 3 mm thickness without any need of primer. The product shall exceed compressive strength of 250 kg/cm² at 28 days and shall have adhesive bond strength to concrete in excess of 15 Kg/cm², when tested to ASTM D4541 test method.

Directions for use

Surface Preparation

It is essential that the surfaces to be bonded are sound, clean and uncontaminated. All loose powdering material must be removed.

Concrete surfaces should be thoroughly soaked prior to application of EMACO R303, to ensure a saturated, but surface dry condition.

Mixing

EMACO R303 is formulated to give an easily mixed material. For full bag quantities, it is preferable to mix the material in a Creteangle or similar forced action mixer. Alternatively, a slow speed, hand held electric mixer with a suitable paddle can be used. Over mixing should be avoided. The powder should be placed in the mixing vessel and mixing commenced. Clean water should be slowly added up to the recommended maximum or until the required consistency is achieved.

No more than 4.75 litres of water per 25kg of EMACO R303 should be added.

Placing

EMACO R303 should be applied to the complete area with the minimum of trowelling. Leave for a short period before final trowelling. Finishing may be aided by flicking a small amount of water onto the surface, using a paint brush before final trowelling.

Curing

Good curing practice is essential even though EMACO R303 is specially formulated to prevent shrinkage and cracking. Particular care is required in hot and windy conditions.

Cure with a single coat of MASTERKURE 181 which is compatible with most subsequent protective



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coatings, or by covering the work with properly secured plastic sheeting.

Void filling

Deeper voids should be filled prior to the application of the cosmetic repair layer by reducing the amount of water added when mixing to produce trowellable putty like mortar.

Coverage

One 25kg bag of EMACO R303 when mixed with 4.75 litres of water shall yield 17 litres of mortar and will cover approximately 5.5 m² at 3mm average thickness.

Packaging

EMACO R303 is supplied in 25kg bags.

Equipment care

Tools should be washed with water immediately after use.

Storage and Shelf life

Store under cover, out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in an air-conditioned environment.

Shelf life is 6 months when stored as above.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice please consult BASF's Technical Services Department.

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes, mouth, skin and foodstuffs (which can also be tainted with vapour until product fully cured or dried). Treat splashes to eyes and skin immediately. If accidentally ingested, seek immediate medical attention. Keep away from children and animals. Reseal containers after use. Do not reuse containers for storage of consumable item. For further information refer to the material safety data sheet. MSDS available on demand or on BASF construction chemicals web site.

Note

All BASF Technical Data Sheets are updated on regular basis; it is the user's responsibility, to obtain the most recent issue.

Field services where provided, does not constitute supervisory responsibility, for additional information contact your local BASF representative.

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TDS Ref. no.: EmcxR303/04/0711

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