Division 03

Waterproofing

DATA SHEET

PREMIX RM

Single Component Ready-to-Use Repair Mortar

Product Code No.: M-0305, M-0306, M-0307

Uses

PREMIX RM is a single component polymer modified ready-to-use repair mortar ideally suited for repair of RCC structures by hand application or spray and troweling.

Advantages

PREMIX RM when mixed with calculated water, gives the following properties.

- **Excellent adhesion in dry, damp or permanently wet conditions to both concrete and steel.**
- **Higher compressive and tensile strength.**
- **High abrasion resistance.**
- **Low water permeability due to continued pozzolenic reactions hence has dense matrix.**
- **Enhanced resistance to freeze - thaw cycles, alkalis and dilute acids.**
- **Low shrinkage.**
- **Non Corrosive to steel with high inherent alkalinity,**
- **Allows easy application to achieve high application thickness in both vertical and horizontal situations. Resulting spray applied mortar have low rebound losses.**

Advantages Over Liquid Polymer Modified Repair Mortar

1. As product needs only addition of calculated quantity of water, consistent quality is achieved.
2. No need to weigh separately sand and cement for making polymer repair mortar.
3. Site tampering with material is not possible, which may be possible with liquid polymer by adding water which is not desirous.
4. Exact graded sands are used to get compact repair mortar, which is not possible if different grades of sand are mixed at site.
5. Factory controlled quality, hence consistency is obtained for all repair patches, which may not be possible for site prepared polymer modified repair mortar.
6. Easy to carry by train, trucks, tempos or private vehicles, without risk of loss and other limitation.
7. No need of carrying weighing balance and, water is added on volume basis.
8. Small packing of 1kg and 5kg also available, hence no loss of material at site.

Product Description

PREMIX RM is based on an advanced co-polymer, graded sand and cement along with active ingredients, which when mixed with water produces a high strength waterproofing patching mortar, screed or render. Once applied the mortar has excellent resistance to wash out and cures rapidly to form dense impermeable matrix with high diffusing resistance to oxygen, acid gases and chloride ion.

PREMIX RM can also be used to produce Gunite with enhanced properties for application by wet or dry process allowing high build application with low rebound losses at too water- cement ratios.

The enhanced properties ensure high adhesion, low shrinkage, excellent resistance to freeze - thaw attack and high flexural and compressive strengths.

Application data

Surface Preparation

Mechanically remove all damaged concrete back to a sound core. Whenever possible, the full circumference of the steel reinforcement should be exposed to at least 25mm behind the bars and 50mm beyond the point at which corrosion is visible. On cutting back, feather edges must be avoided. The perimeter of the repair area should be stepped to a depth of 10 mm by means of saw or disc cutting or preferably using a power chisel. The areas to be repaired must be free from all unsound materials i.e. dust, oil, grease, corrosions by-products and organic growth. Smooth cut surfaces should be roughened, all lose materials and surface laitence removed and reinforcement cleaned to bright steel. Shot blasting or grit water jetting is recommended, but for some smaller areas needs gunning or bush hammering is effective. The strength of the concrete sub-base should be a minimum of 20 N/mm^2.
The prepared substrate should be thoroughly soaked with clean water until uniformly saturated without any standing water.

Priming / Bonding

Where necessary, two coats of MULTIBOND S (steel reinforcement protector) should be applied to the prepared steel, by brush, as described in the individual data sheet. Where the substrate exhibits high porosity or is absorbent, the pre dampened surface should be primed with a thin slurry consisting of one part of Multicrete CM, 1 part ordinary Portland cement mixed to give a thin emulsion consistency.(coverage 10-15m^2/kg of Multicrete CM) For repair of concrete in

Crystalline waterproofing system, use MIM (separate datasheet) instead of Premix RM. In some of the cases Premix RM may be used with MITA as primer.

Allow to become dull before continuing with application and remove any excess material lying in rough, broken or irregular surfaces. The subsequent rendering, screeds, etc. should be applied on wet basis.

Mixing

PREMIX RM should be mechanically mixed, using a forced action pan mixer in a clean drum, using a drill and paddle. A normal concrete mixture is not suitable. For normal application, use from 3.0-3.7 litres of clean water per 25 kg bag depending upon desired consistency. This equates to 5.0-6.0 volumes of powder to one volume of water. Normal mixing time depends upon the type of mixer used 2-3 minutes is an average. Mix so as to entrain as little air as possible. Use without delay.

Placing

Mortar or screed should be applied so as to remove entrapped air, in layer, not exceeding 50mm thickening (preferably 20mm) per application.

If necessary, support with shuttering to allow for compaction. For repairs, which require multi-layers application, it is important to ensure that previous layers are well keyed and hardened but not fully cured prior to the application of subsequent layers. Final profiling should be carried out with wooden float or steel trowel.

Curing

Normal concreting procedures should be strictly adhered to. It is important that the surface of the mortar or screed coating is protected from strong sunlight and drying winds with polythene sheets, damp hessian or similar. This provides effective curing, whilst also providing a hard wearing, non-slip finish. Allow a minimum of 72 hours curing of the material and ensure the moisture content of the surface is less than 20%.

Cleaning

All tools should be cleaned with water immediately after use.

Shelf life

6 months in dry, frost free conditions with unopened sack at 20 °C.

Packing

Pack size: 1kg, 5kg, and 25 kg

REPAIR MORTARS:

Description	PREMIX RM-100	PREMIX RM-200	PREMIX RM-300
Uses	High performance	High performance	Heavy Duty
Fibre Reinforced	Nil	Yes	Yes
Water for 25 kg pack	3 lit	3 lit	3.2 lit
Typical Yield	13 lit	13 lit	13.5 lit
Compressive Strength (28 days Typical)	40N/mm^2	40N/mm^2	65N/mm^2

Coverage of 25 kg pack for filling Groove, of dimension, W width in mm and D depth, in mm:

Coverage in feet = 426250/ (W*D)

Product of :

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