



## TECHNICAL DATA GUIDE- CONCRETE & CEMENT ADDITIVES

### PREPLAST RM

Mineral activated additive with self-curing property for cement plastering – For Ready plast industries

#### DESCRIPTION

**PREPLAST RM** is a mineral based additive for enhancing the quality of plastering with good adhesion by activating the cement particles and makes the rheology of plaster smooth and easy to apply. **PREPLAST RM** is supplied as a ready to use white powder added with the plastering mix. It is designed exclusively for ready mix plaster manufacturers supply as an additive to ne mixed with their dry mix - Raw additive Being resistant to hydrolysis, it is ideal for internal and external applications in conjunction with cement.

#### FEATURES AND BENEFITS

- Excellent bond to masonry, stonework, plaster and blockwork
- Crack resistant – 2 times better set than conventional products
- Improved adhesion properties allow to build thicker plaster from 20-30 mm based on the mother substrate.
- Single component powder can be easily gauged
- Improves cohesion and workability
- Improves mortars to provide renders and toppings which are highly resistant to freeze/thaw cycling
- Enhance pot life of mortar
- Self-curing property
- Lesser Rebound loss
- Avoids shrinkage cracks

#### PERFORMANCE TEST DATA / SPECIFICATION CLAUSE

Below listed values were achieved by assessing the mechanical properties of a 1:4 cement sand mortar containing **PREPLAST RM** in the proportions 1kg per 50kg cement. The dosage may vary based on the fine aggregate property. The test methods used were in full accordance with IS 2386 (Part 6) 1963 (RA 2016) at 28 days - air cured with 1-day manual curing to enhance cement hydration – which compensate water loss during plastering.

<b>Compressive Strength @ 28 days</b>	5-10 mPa <small>*based on type of cement</small>
<b>Rebound Loss</b>	7%
<b>IS</b>	IS 2386 (Part 6) 1963 (RA 2016)
<b>ASTM</b>	D 4541

#### DESIGN CRITERIA

The application parameters for mortars modified by the use of **PREPLAST RM** will differ depending on the actual mix design used. Generally, however, **PREPLAST RM** mortars can be applied in sections up to 40mm thickness in horizontal locations and up to 20-30mm in vertical locations at one stretch. The thickness achievable in overhead locations without the use of formwork is largely dependent on the profile of the substrate. Vertical and overhead sections greater than those stated above may be built up in layers but may sometimes be possible in a single application dependent on the actual size and configuration of the plastering area, and the volume of any exposed projections in masonry work. **PREPLAST RM** mortars should not be applied at less than 6mm thickness. Thicknesses up to 20-30mm in a single application can be achieved by the use of formwork, however quality of fine aggregate must be coarser to build the thickness, with the fine aggregates with the fine content passing more than 12% in 150-micron sieve must be taken care as it may have tendency to sag in congestion with building of excess layer in external plastering.

#### APPLICATION INSTRUCTION

##### Preparation

Before applying bond coat to the surface – ensure the plastering surface free from any projection and proper dots has been done in accordance with the requirements. Apply bond coat with latex cement or with cement slurry for a approximate thickness of 500 micron to 1mm



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### DIRECTIONS OF USE AT RM PLANT

As per the required ratio Weigh or batch cement and PREPLAST RM together with the gauged packet of 1kg to 1 bag of cement along with add sand and where required if aggregate into the mixer and dry blend together for 2-3 minute. With the machine in operation, always add pre-gauged PREPLAST RM directly with cement were the aggregates must be totally bone dry – it is suggestable to add in heated aggregates not more than 40 -60 deg Celsius. Continue mixing for 3 minutes to ensure complete dispersal into the sand and cement.

Continue mixing up to a maximum of 5 minutes until a smooth and fully homogeneous consistency is achieved with the required workability and application properties. Cement may be of OPC / PPC but ensure proper mortar cube strength meets as per IS requirements and ensure it is critical that allowance is made for the moisture content of the sand and aggregate, particularly where they are stored on site.

### MORTAR APPLICATION

For application to all surfaces, PREPLAST RM mortars, toppings and renders must be well-compacted on to the primed substrate by trowel. It is frequently beneficial to work a thin layer of the mortar into the slurry primer and then build the mortar on to this layer. Exposed projections should be completely encapsulated by the mortar.

PREPLAST RM mortars can be applied at a minimum thickness of 6mm and up to 30mm thickness, dependent on the location and configuration of the plastering zone. The thickness achievable in overhead locations without the use of formwork is largely dependent on the profile of the substrate. Refer to the recommended thicknesses as per the site requirements. If the recommended thickness is exceeded and sagging occurs, the affected section must be completely removed and reapplied in accordance with the procedure described above. The use of formwork may facilitate achieving the required build. If formwork is used, it should have properly sealed faces to ensure that no water is absorbed from the repair material.

Where thicker sections up to a total thickness of 20mm are to be built up by hand or trowel application, the surface of the intermediate layers should be scratch-keyed. Application of the slurry primer and a further application of PREPLAST RM mortar may proceed as soon as this layer has set.

### AGGREGATES & CEMENT

PREPLAST RM is designed to overcome the flakiness and gap gradation in fine aggregates, however it is recommended to ensure proper gradation if Msand or P Sand apart from quartz or silica is in use. Always ensure sieve consistency from 600-150-micron percentage, also ensure the quality of cement as per IS and compared in congestion with lab report.

### High Temperature Working

At ambient temperatures above 35°C-, the material should be stored in the shade and cool water used for mixing

### LIMITATION

PREPLAST RM mortars, toppings and renders should not be applied when the temperature is 5°C and falling. Neither should they be exposed to moving water during application. Exposure to heavy rainfall prior to the final set may result in surface scour. If any doubts arise concerning temperature or substrate conditions, consult **STEP IN TECHNOLOGIES** team.

### PACKING

PREPLAST RM is supplied in bulk bags

### STORAGE / SHELF LIFE

PREPLAST RM should be stored in a shaded cool and dry place. Shelf life of **PREPLAST RM** is 12 months from the date of manufacture if kept in unopened, undamaged, original sealed packaging and kept within the range of 10°C to 50°C. If the product is frozen, thaw at +5°C or above and remix with mild agitation. Failure to comply with recommended storage may deteriorate the product or packing.

## HEALTH & SAFETY

**PREPLAST RM** is powder based, non-flammable and non-hazardous. However it should not be swallowed or allowed to come into contact with skin and eyes. Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed, seek medical attention immediately - do not induce vomiting. For further information refer to the material safety data sheet.

### DISCLAIMER

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