

TECHNICAL DATA GUIDE- CONCRETE & CEMENT ADDITIVES

PREPLAST

Mineral activated additive with self-curing property for cement plastering

DESCRIPTION

PREPLAST 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** is supplied as a ready to use white powder added with the plastering mix. It is designed to improve the qualities of site-batched cementitious mortars and slurries. 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 as required as supplied in 500 gms Sachet
- 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 1:5 cement sand mortar containing **PREPLAST** in the proportions 500gms 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.

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

DESIGN CRITERIA

The application parameters for mortars modified by the use of **PREPLAST** will differ depending on the actual mix design used. Generally, however, **PREPLAST** 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** 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 an approximate thickness of 500 micron to 1mm



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DIRECTIONS OF USE

As per the required ratio Weigh or batch cement and PREPLAST PLAST together with the gauged packet of 500gms 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 directly with cement not with aggregates as PREPLAST plast have tendency to react with alkalies in fine aggregates. Continue mixing for 3 minutes to ensure complete dispersal into the sand and cement. Make any small adjustment to the quantity of clean water but do not significantly exceed the litre.

Additional water should be kept to a minimum. 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. 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 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 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 30mm 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 mortar may proceed as soon as this layer has set.

FINISHING

PREPLAST mortars can be finished with a steel, plastic or wood float, or by a damp sponge technique, to achieve the desired surface texture. The completed surface should not be overworked.

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 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 is supplied 500 gms

STORAGE / SHELF LIFE

PREPLAST should be stored in a shaded cool and dry place. Shelf life of **PREPLAST** 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 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

The information given is based on data and knowledge considered to be true and accurate and is offered for the user's consideration, investigation and verification. Since the conditions of use are beyond our control we do not warrant the results to be obtained. Please read all statements, recommendations or suggestions in conjunction with our conditions of sale including those limiting warranties and remedies which apply to all goods supplied by us. No statement, recommendation or suggestion is intended for any use which would violate or infringe statutory obligations or any rights belonging to a third party. The use of this product is beyond the manufacturers control and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. Specifications are subject to change.

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