

## TECHNICAL DATASHEET

# READY MIX MORTAR (FR)



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## PRODUCT INTRODUCTION

ASCOLITE Ready Mix Mortar (FR) is a premixed cement based solution enriched with PP/glass fiber to substitute for traditional site mix, wall plaster. Water has to be added with premix before plastering. The solution consists of processed sand which is dried, graded & distributed as per particle size and proportionately mixed with cement and water soluble polymers which act as additives. RMP (FR) with PP/glass construction fiber is suitable for higher strength, crack resistance and durability. The application method requires water mixing before application to make it ready for plastering. It can be used for external and internal plastering.

ASCOLITE Ready Mix Mortar comes in two variants:

- i. Ready Mix Mortar without PP/Glass Fiber
- ii. Ready Mix Mortar with special formulated PP/glass construction fiber.

## SUBSTRATE WHERE IT CAN BE APPLIED:

1. Fly-ash blocks
2. Aluminum framework RCC wall.
3. Fly-ash brick walls
4. Clay brick walls
5. Stone walls
6. As ceiling plaster

## READYMIX MORTAR COATS

1. **Internal:** 10mm-15mm single coat is highly recommended for internal plaster covering.
2. **External:** Two coats are recommended to cover the external side of walls.

Base coat of 10mm-15mm and finish coat of 8mm-10mm to get thickness between 20mm-22mm, further depending upon site conditions. After base coat, minimum 2 to 3 days curing should be done before final coat's application.

## TECHNICAL PROPERTIES

| PARAMETER   | VALUE   |
|---|---|
| Max aggregate size  | 3.5mm down  |
| Retention % on sieve  | 2.36mm 0-6  |
|   | 1.00mm 40-50  |
|   | 600micron 50-60   |
|   | 300micron 60-70   |
|   | 150micron 70-80   |
|   | 90micron 75-80  |
| Bulk density  | 1600±50 Kg/m <sup>3</sup>                               |
| Compressive strength @ 28 days as per IS-2250/ ASTM C-109 using 50 KN CTM | ≥ 7.5 N/mm <sup>2</sup>                                 |
| Pull off adhesion strength @ 28 days on concrete as per ASTM D 4541       | ≥ 0.30 N/mm <sup>2</sup>                                |
| Silt content in sand after grading as per IS-1542                         | < 1%  |
| Soundness % as per IS-4031  | ≤ 0.03 %  |
| Pot life  | ≥ 30 minutes depending upon climatic conditions at site |
| Setting time as per IS-4031 (@ 15-18% Water Demand)                       | Initial: 4 Hrs ± 15 Minutes Final : 5 Hrs ± 15 minutes  |
| Fiber length (PP/ Glass)  | 6mm   |

## COMPARISON WITH CONVENTIONAL METHOD OF SAND-CEMENT PLASTERING

| PARAMETERS                    | ASCOLITE READY MIX MORTAR  | CONVENTIONAL MORTAR   |
|-------------------------------|--|---|
| Saving of time-labor cost     | Fast application as only water needs to be added. No extra labor is required for sand gradation and cement mixing at site  | No time saving as screening of sand and mixing of individual components are required. For this purpose large number of labor is required. |
| Quality consistency           | Consistency quality due to PLC controlled process, uniform weights of individual raw materials from batch to batch   | Unconventional method, quantity of RM and mixing time varies so quality consistency not possible  |
| Shrinkage cracks              | Negligible Shrinkage Cracks due to the addition of Certain Additives   | Significantly high shrinkage cracks are observed ever after water curing  |
| Handling and Storage          | Easy handling and storage is possible at construction site. Bags can be easily counted, so stock figures can be properly maintained  | With conventional method, sand storage and its stock is difficult to maintain   |
| Technical Support             | ASCOLITE provides complete support in terms of freemockup, testing at site like pull of adhesion strength with detailed test report. ASCOLITE provides mobile testing services | No support from sand and cement & other material supplier is expected   |
| Sand quality                  | Only dry and well graded sand is used. Sand is free from silt and other deleterious materials  | Drying of sand and proper gradation is not possible at site. Sand comes with high silt  |
| Rebond loss and efflorescence | Much Less as polymers added to ASCOLITE Ready Mix Mortars during manufacturing process provide cohesion property to the mix  | Higher  |

### RAW MATERIAL SPECIFICATION/TESTING PROCEDURE REFERENCE:

Sand: IS-1542 & Internal Standard. OPC Cement: IS-12269

Flyash: IS- 3812 Part-1

Additives: As per Internal Standard

## FEATURE-ADVANTAGE-BENEFIT

| FEATURE   | ADVANTAGE  | BENEFITS   |
|---|--|--|
| Required compressive strength   | Increases masonry strength of the wall   | Better long term durability of the plaster   |
| Raw material are tested and accurately mixed with specific particle size and quantity | <ul style="list-style-type: none"> <li>◆ Minimum shrinkage cracks</li> <li>◆ Bags are of consistent quality</li> </ul>                             | Better finish and quality of the plastered wall.   |
| Graded dry sand   | High coverage  | Cost saving  |
| Technical assistance  | Our technical representatives provide you're with services like sampling of products, doing site audits and are available for technical assistance | Higher construction efficiency   |
| Premixed  | <ul style="list-style-type: none"> <li>◆ Only water needs to be added before application</li> <li>◆ Easy application</li> </ul>                    | <ul style="list-style-type: none"> <li>◆ No need to store different Materials</li> <li>◆ No need to maintain entire mix ratio</li> </ul> |
| Better adhesion strength  | Reduces rebound loss   | Saves costs  |
| Equal size packaging in bag form is provided  | Easy to maintain stock   | Reduces space required for storing the material  |
| Available round the year  | No need to store materials and makes it easier for material planning   | Reduces storage costs and facilitates on timely completion of work   |

## SURFACE PREPARATION & APPLICATION GUIDELINES:

- 1) **Concrete block jointing:** All concrete and AAC blocks joints must be covered with a chicken wire mesh.
- 2) **Wall wetting:** Dampen the wall before application of Plaster. For application on concrete and for better adhesion use ASCOLITE Ascoplast bond Gypbond.
- 3) **Mix preparation:** In 6-7 Liter of potable water, add 1 bag of 40 Kg of mortar.
- 4) **Leave to react:** Leave the mix to react for 5-10 minutes and remix before use.
- 5) **Remixing:** Machine or hand mixing should be done for 5-10 minutes.
- 6) **Apply on wall:** The mixture should be thrown on wall. Ensure leveling with the help of tools.
- 7) **Second coat:** If second is required, ensure grooving on first coat to provide to provide good grip for second coat.
- 8) **Leveling:** After final coat, ensure proper leveling with the help of appropriate tools.
- 9) **Water curing:** After the plaster is dry, curing should be done 2-3 times a day for 7 days minimum.
- 10) **Packaging:** 40 Kg bags.
- 11) **Shelf life:** 6 months from the date of manufacturing.
  - For better adhesion, strength and reduced water absorption, use Fixobond AD in Ready Mix Mortar FR @ 30-60 ML /40 Kg Bag.
  - For reduced water permeability in external plaster applications, use Ascoproof IW+ (integral water proofing compound) @ 10-15 ml/40 Kg Bag of Ready Mix Mortar FR.

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