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# AAC BLOCKS

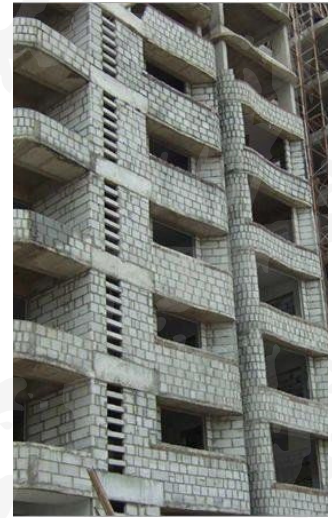
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www.xylopaints.com



## Advantages of AAC Blocks

- It is light weight.
- Available in different thickness and sizes.
- The sizes are defined and aligned.
- Gives a thermal insulation to the surface.
- Absorbs little water.
- Easy to handle.
- Uses less cement mortar for binding.
- Can be cut with a saw for the last brick in the line.



## Challenges for AAC Blocks

- The breakages are a waste.
- The bricks are not aligned when erected.
- The mortar used for stacking is not water proof.
- The cement mortar used as plaster does not adhere to the surface well.
- Cracks are seen in the joints between RCC and AAC.
- Cracks due to lateral movement.
- Cracks in conduited areas.
- Repairing on the surface is visible after painting.
- Tile adhesion to the surface is not good.
- Leakages from top.

## Application Procedure Of Magic Xp–Elastomeric Paintable Plaster on AAC Block

### **For preventive measure:**

- Paste the conduits with **AAC Bond** only.
- For the gap in top make smaller pebbles of AAC blocks and dip it in the **AAC Bond** and fill it.
- While plastering with **Magic Xp**, wrap all the eight corners and the surface with nylon mesh as explained below:

### **For corrective measure:**

- Apply 2-3 mm of **Magic Xp** on the surface of bare AAC blocks with a roller or a trowel .
- Affix the nylon mesh of 45 GSM when the surface is wet and remove the excess material.
- Apply the second coat of **Magic Xp** and use a aluminum tube to level the surface. Allow it to dry completely.
- Apply one more coat of **Magic Xp** to get a smooth and even finish.
- The surface becomes smooth and washable, and hence paintable.

## Nomenclature for block pasting:

- Providing and Application of **AAC Bond- Super Polymerized Bond** for AAC block pasting to get an aligned surface in line with the size of AAC Blocks and pointing to be filled with AAC bond to get an even surface.

### Cost Benefit Analysis for 100 mm thick block pasting

Conventional		Xylo	
Compound	Rs. 04.00	AAC Bond	Rs. 16.00
Beam	Rs. 10.00	Beam	Not Required
Labour	Rs. 07.00	Labour	Rs. 05.00
Curing	Rs. 01.00	Curing	Not Required
<b>TOTAL</b>	<b>Rs. 22.00</b>	<b>TOTAL</b>	<b>Rs. 21.00</b>

## Nomenclature for plastering:

- Providing and Application of two coats of **P-Laster- Coarse Polymerized Mortar** by sandwiching the 45 GSM nylon mesh to a maximum thickness of 3 mm to 3.5 mm.

### Cost Benefit Analysis for plastering

Conventional		Xylo	
Punning with POP	Rs. 25.00	P-Laster (3mm thick)	Rs. 40.00
Mesh	Rs. 02.00	Mesh	Rs. 02.00
Labour	Rs. 10.00	Labour	Rs. 07.00
<b>TOTAL</b>	<b>Rs. 37.00</b>	<b>TOTAL</b>	<b>Rs. 49.00</b>

- The above rates are indicative rates and exclusive of GST.
- Cost may vary from region to region.

## Nomenclature for painting:

- Over the plastered surface, **Magic Xp- Elastomeric Paintable Putty** to be applied with a roller evenly and the surface to be levelled vertically with an aluminum tube of 4 ft. The finished surface is to be coated with appropriate emulsions in the desired colour.

### Cost Benefit Analysis for painting

Conventional		Xylo	
Primer	Rs. 02.00	Primer	Not required
Putty	Rs. 05.00	Magic Xp	Rs. 07.00
Sanding	Rs. 00.50	Sanding	Not required
Primer	Rs. 02.00	Primer	Not required
Premium Emulsion	Rs. 06.00	Premium Emulsion	Rs. 05.00
Labour	Rs. 10.00	Labour	Rs. 05.00
<b>TOTAL</b>	<b>Rs. 25.50</b>	<b>TOTAL</b>	<b>Rs. 17.00</b>

- The above rates are indicative rates and exclusive of GST.
- Cost may vary from region to region.

## Frequently Asked Questions

### 1. How do you resolve the drying shrinkage of 0.50 % in AAC block?

The **AAC Bond- Super Polymerized Bond** has an excellent flexible property which takes care of minor shrinkage in AAC Blocks.

### 2. How do you resolve the structural movement cracks between RCC and Blockworks?

The **AAC Bond- Super Polymerized Bond** has an excellent adhesion and a good co-efficient of thermal expansion contraction. It holds on both ends of RCC and Blockwork and expands when the temperature goes up and contracts when the temperature comes out with leaving either RCC or Blockwork.

In such areas, we reinforce the putty/plaster with 45 GSM nylon mesh.

### 3. Why do cracks happen in AAC Bricks?

It is because of thermal expansion and contraction.

### 4. This is a standard reply – Explain clearly?

There are two types of cracks in a AAC block work:

**1. A staggered straight line cracks-** These cracks happen at following four places-

- RCC and Blockwork
- AAC Blocks corner
- Mulian and Blockwork
- Conduited areas

This can be prevented if **AAC Bond** is used as a pasting compound for blocks and conduits also.

**2. Tapered cracks-** These are the cracks which happen because of lateral movement as there are already cracks in AAC Blocks.

This can be prevented with **Magic Xp**.

### 5. Why should it crack when we use the company recommended block adhesive?

AAC Blocks absorb very little water hence the cement in binding material get very little hydration. Hence, the adhesion between the blocks and cement based adhesive is not good.

### 6. Do you mean to say that AAC Blocks should not be used?

AAC blocks are the future of the building industry as it gives various advantages like thermal insulation , noise insulation , light weight ,easy to use , easy to transport, available in large sizes etc.

We wish to convey that the material used for block pasting and plastering must have good adhesion , elastomeric , hydrophobic and film formation properties.

### 7. How do we stack the AAC blocks?

The blocks may be stacked one over the other or in brick pattern with Xylo's **AAC Bond** and the pointings must be finished with **AAC Bond**.

### **8. Can we remove the Mulian? If yes, why?**

Yes, the Mulian must be removed if it is not tied to the pillars as it will only increase the load.

The blocks are manufactured in boulders and then it is cut to size. Since the transportation is difficult for sending the AAC Block in large panels. The performance will remain the same if we can give a material with good adhesion and elastomeric, which AAC Bond is.

### **9. How do we check whether the product will perform or not?**

1.(a) Break the block unevenly and paste it with **AAC Bond**.

(b) Paste four more blocks to the above block.

(c) Make a hole on one side of the broken blocks.

(d) Tie a rope and suspend it on a hook to check the adhesion properties.

2. Spray water from one side and check if it is oozing out on the other side.

This will show that the product is hydrophobic .

3. Apply **Magic Xp** as a plaster and by reinforcing with nylon mesh across the surface.

4. Paste tiles on the other side with **Tilo** or **Magic Xp**.

Alternatively, you may paste the block on a RCC column at a height and keep weights on it.

### **10. What do we do for the cracks which are already happened?**

Xylo's material can be used as a :

1) Preventive Measure

2) Corrective Measure.

### **11. What are the corrective and preventive measures?**

Corrective measures: Use **Magic Xp** over the plastered / gypsum/painted surface by reinforcing the entire surface with nylon mesh of 45 GSM.

Preventive measures: Use **AAC Bond** for block pasting and for plastering directly on the blocks , you may use Magic Xp by reinforcing the entire surface with nylon mesh of 45 GSM.

## 12. What do we do in areas where the gap between the blocks and the beam/pillar is very small?

Normally PU foam is used as a filler which is very expensive and is not paintable. In such a situation, you break the blocks into small pebbles and mix it with **AAC Bond**. Use this mixture to fill in the voids.

You may find cracks when **AAC Bond** is applied thick. You may fill the crevices of the cracks with **AAC Bond** again and the entire area will become homogenous.

## 13. Will the cement plaster adheres to the AAC Blocks?

Since the AAC Block do not absorb water, an aggregate made with water will not adhere properly. The grooves on the blocks helps in adhesion due to CLING ON adhesion.

## 14. Do you mean to say that we should not do plaster on AAC Blocks?

- Plastering on the external is essential as the blocks are aligned from inside. Hence the thickness of the plaster / offset will be more.
- Plaster can be eliminated in the internal.

## 15. How do we ensure that the plaster do not fall off over a period of time?

We must laminate the building which can hold the plaster as a filler and which is hydrophobic.

## 16. Which material do you recommend for lamination of the plaster?

**Magic Xp- Elastomeric Paintable Putty/Plaster**. It has the following properties:

- Film formation
- Excellent adhesion
- Hydrophobic
- Indentation Resistant
- Elastomeric
- Impregnation

## 17. Why do we get tapered cracks after completing the painting on AAC Blocks?

Cracks are there in the blocks itself which opens up due to lateral movement. Further, it percolates down the layer because the joinery material is not flexible and the crack percolates down. This can be eliminated by using **AAC Bond** which will work like a shock absorber and the crack will remain in that particular block.

By applying **Magic Xp Putty/ Plaster** even those cracks can be eliminated as it forms a composite film.

“First Time Right”

**Magic Xp** in combination with  
**AAC Bond | Spade | Weather Touch**  
addresses all the challenges  
effectively and efficiently.



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