Superpowers for Supersized Structures

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Prime AAC Blocks
No.1 Light Weight Bricks

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Spirit Ablaze For More

When passion meets excellence, unbelievable things come into existence. Driven by such relentless spirit, a group of proficient and highly qualified entrepreneurs have established a manufacturing facility focusing on innovative and eco-friendly building material called AAC Blocks. AAC Blocks, which once were hard to notice in the Indian market are now omnipresent. The management is committed at all times to bring best quality eco-friendly building materials at affordable prices into the market. With this vision, the group has set up state-of-the-art manufacturing facilities to produce PRIME brand of Autoclaved Aerated Concrete Blocks and PRIME brand of uPVC Doors & Windows. The blocks are marketed as PRIME AAC Blocks and Doors & Windows as PRIME uPVC Doors & Windows. The group is well established all over South India and serves customers from North India, Sri Lanka, Nepal, Mauritius, Myanmar and Bangladesh on specific requirements.
PRIME AAC Blocks
The Blocks of Prosperity

Innovations break the barriers by giving rise to remarkable changes. The ever evolving construction industry has embraced AAC (Autoclaved Aerated Concrete) cutting edge technology to move away from the age-old methods of using conventional bricks. Invented by a Swedish engineer Johan Axel Eriksson and predominantly accepted all over the world, the AAC blocks are here to redefine the rapidly evolving Indian construction landscape.

As the irreplaceable contender for the conventional building masonry, PRIME AAC blocks come loaded with beneficial properties such as light weight, strong, thermal & sound insulation, pest resistant and other core benefits which ease the process of construction. PRIME AAC blocks are ideal for industrial, commercial and residential structures for different applications.

Profits Now Go a Notch Higher

When top-class technology meets top-of-the-line quality requisitions, great results and revenues are effortlessly generated. That is why PRIME AAC Blocks is developed to be the best player in AAC Blocks category by keeping in mind the norms of the modern construction today.

There are several advantages and qualities that make it the best choice of responsible builders and intelligent engineers. Their large size, solid strength, light weight and other unique qualities like thermal and sound insulation, fire resistance, eco-friendliness in manufacturing and use make it the right building material for present times. In addition, PRIME AAC Blocks reduce HVAC expenses approximately by 40%.
PRIME AAC Blocks are excellent acoustic insulators. Depending on the thickness of the wall, a sound insulation of 37 to 51 db can be achieved. This salient feature creates calm and serene living conditions. PRIME AAC Blocks are ideal for constructing Hospitals, Studios, Auditoriums, Educational Institutions and more.

The pest resistant properties of PRIME AAC Blocks keep termites away, avoiding damages and losses.

The manufacturing process gives the blocks commendable strength, maintaining its light weight property due to which the steadiness of these blocks in buildings is more reliable, making it earthquake resistant and giving it a longer life.

Breakage of PRIME AAC Blocks is negligible at less than 5%, which increases the utilization of the blocks.
PRIME AAC Blocks,
The Bestsellers

When the best of raw materials go into making of AAC blocks, you can only expect the best of results in return. Fly-Ash from Vijayawada Thermal Power Station and superior quality lime from Rajasthan are sourced to make PRIME AAC Blocks. The AAC Blocks come with a host of benefits one cannot ignore.

Energy Saving

Thermal insulation property is one of the greatest benefits of using PRIME AAC Blocks, as the AAC block wall helps maintain distinct internal and external temperatures saving energy costs. They act as good climate controllers and maintain the interiors depending on the climate outdoors. They reduce HVAC load by as much as 40%.

Cost Saving

PRIME AAC Blocks are 8 times the size of clay bricks, reducing the need for mortar joints by over 66%. Light weight properties lead to a lighter dead load on the building structure. Due to the surface accuracy of the blocks, the need for plaster on PRIME AAC Blocks is comparatively less. High insulation properties result in saving of energy costs. PRIME AAC Blocks reduce construction cost by about 40% at different levels.

Unbreakable Strength

The Honeycomb like structure, formed in the process of manufacturing, differentiates PRIME AAC Blocks from the conventional clay bricks. This unique feature gives PRIME AAC Blocks an edge over others in offering top-of-the-line benefits like thermal insulation, sound insulation and strength. Furthermore, during earth quakes, PRIME AAC Blocks naturally dissipate shock waves equally by giving the structures an unbreakable strength.

Fire Resistance

PRIME AAC Blocks are non-combustible. They are suitable for use in areas where fire safety is recommended, as these blocks exhibit fire resistance from 4 to 6 hours depending on the thickness of the wall.
PRIME AAC Blocks' Dimensions

PRIME (AAC) Blocks have a common length of 600 mm and height of 200 mm and vary only in thickness as pictured beside.

A model house built with AAC Blocks and uPVC Doors & Windows.
Why PRIME AAC Blocks are unmatched

<table>
<thead>
<tr>
<th>Conventional bricks</th>
<th>PRIME AAC Blocks</th>
<th>What it means</th>
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| Heavy               | Light-weight. They are only 1/3 density of clay bricks | a) The light-weight and high structural integrity of the blocks lessens the usage of steel and reduces the cost of construction.  
b) The light-weight facilitates easy movement of blocks around the site and shifting to higher levels. |
| The normal size is 220 mm x 100 mm x 75 mm | Much bigger in size. The standard sizes are  
600 mm x 200 mm x 75 mm  
600 mm x 200 mm x 100 mm  
600 mm x 200 mm x 120 mm  
600 mm x 200 mm x 150 mm  
600 mm x 200 mm x 200 mm  
600 mm x 200 mm x 230 mm | a) The bigger size makes their placement easy. Since there will be less number of joints there will be savings in the cost of plastering and labour hours.  
b) Projects can be completed faster with less labour, resulting in substantial savings in the cost of the project. |
| Not workable        | They can be cut, shaped, chiselled, drilled with normal carpentry tools. | a) You can obtain desired patterns and shapes.  
b) Ducting for cabling and plumbing can be done with ease, speed and finesse. |
| Vulnerable to vagaries of weather | Highly durable. | Not vulnerable to water/rains. Unaffected by harsh climatic conditions. Strong for generations to come. |
| Wastage is as high as 10% | Nil to 1% because the blocks are precisely machine cut. No wastage. | No wastage. |

* Custom sized blocks can be supplied as per specific requirement.
Instructions For Building Wall With PRIME AAC Blocks

Thin Bed Mortar

**Thin Bed Mortar Mixing**

- Mix the thin bed mortar as per the manufacturer's direction in a clean mixing container.
- Ensure the consistency of the mixed thin-bed mortar is such that it flows freely through the teeth of the notched trowel and it leaves the shape of the teeth on the mortar bed.
- Now set the second corner block by adding thin bed mortar to the head joint with trowel.
- Repeat the following steps for each corner using a builder's level.

![Start the Leveling Bed](image)

Masonry with Ordinary Mortar

- The optimum Cement : Sand ratio for mortar mix is 1:6, do not use rich mortar mix (1:4) as this will shrink and will cause cracks in the wall.
- The ideal mortar thickness should be limited to 10-12 mm while using cement mortar; thickness beyond this is not recommended.

![CEMENT](image)

**Things to Remember**

- It is very important that the blocks in each row are perfectly at “water level” after laying the row. Proper care needs to be taken while laying the leveling bed or mortar between the blocks horizontally and vertically. This is very important as improper block work with out proper leveling of mortar horizontally might lead to cracks in the wall due to mortar shrinkage.
- Proper care should be taken while placing the mortar vertically between the blocks. Generally, when the mortar is stuffed vertically, gaps are left between blocks. These air voids might result in cracks in vertical direction.
- Concrete bed of 1 to 2 inches need to be put after completing 4 rows of block work. 6 mm TMT bars should be used in the concrete bed. Concrete bed is recommended for all walls which use blocks less than 150 mm thick.
- Strength of blocks decreases with excessive curing with water. Curing has to be sparsely on blocks. However curing for joints is recommended. However, before starting constructing the wall, ensure that the blocks are dipped in water drum.
General Instructions

**Wall Installation – 1st Level Coursing**
- Place a full width \( \frac{3}{8} \)” deep sand-cement mortar joint using a masonry trowel. Mortar composition can either be 1:6 or 1:5 (Portland Cement : Sand) or any approved thin bed mortar.
- Set the first corner block in the sand-cement mortar.
- Increase or decrease the height of the block by tapping on the block with a rubber mallet or by adding additional mortar under the block.

**Wall Installation – Normal Course**
- Clean the bed joint surface with a brush ensuring there's no dust or any other particles so that the adhesion with mortar is optimum.
- Now apply mortar to head and bed joints using a clean, notched trowel. Ensure that the mortar covers the full width of the joints.
- Carefully ensure each block is close to the head joint.
- Finally tap the end of the blocks with a rubber mallet ensuring full surface coverage of the thin bed mortar.
- Repeat the above steps till the wall is complete.

**Making Conduits in Wall**
- For the purposes of making conduits for electricity and piping make a chase with chasing tools or an electric router.
- Do not drill beyond \( \frac{1}{3} \)rd the depth of the wall.
- After drilling conduits use mortar (1:6 – cement:sand) to fill the notch.
- Then install the necessary cables and fasten with clips if necessary.

**Plastering**
- Before plastering, cement slurry may be applied on the walls and only leaner mix shall be applied.
- The thickness must be 10-12 mm of 2 layers on the exterior walls and on the internal wall it should be 1 layer of 10-12 mm.
- Before plastering the wall should be watered adequately.
- After watering, plastering should be done by applying rendering material. Chicken mesh should be used during plastering the wall. Chicken mesh is a must while plastering along the beam / column (concrete) - block joints.
- Only well-sieved sand should be used for plastering.
- Once done, the plastered wall should be watered for 7 days.
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