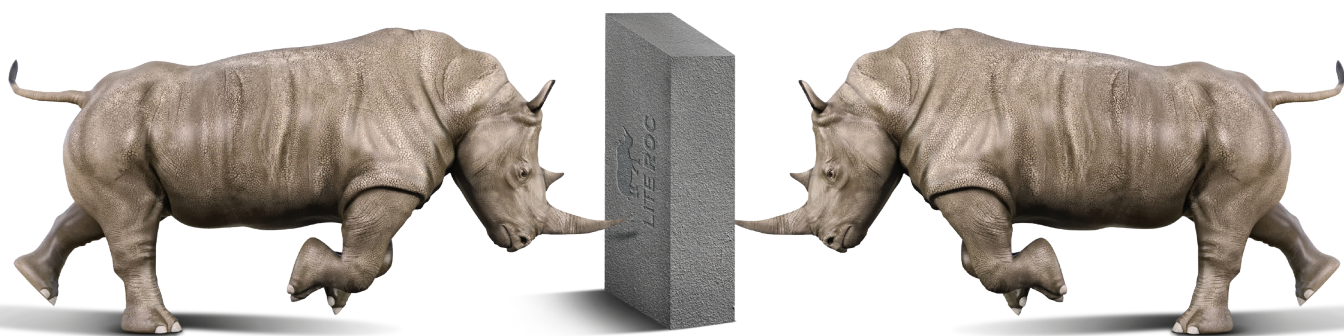




# AAC BLOCKS, INDIA'S SUSTAINABLE BUILDING LEGACY



**pionniercrete**  
LET'S CREATE A BETTER WORLD



## A CONCRETE SCIENCE

Depletion of natural resources and increasing carbon footprint are one of the major concerns in the society. Mankind is in search for eco-friendly solutions to a greener environment. AAC Blocks, an eco-friendly material greatly lowers carbon footprint in comparison to other building materials.

AAC Blocks have been used for construction since the last 80 years. Developed in 1920 at Sweden, it has become one of the most important materials for strong and excellent buildings in Europe and many other parts of the world. Autoclaved Aerated Concrete consists of a unique combination of Tobermorite 11A molecules and air pores. Tobermorite 11A molecules are very durable and can not be physically decomposed through heat, corrosion or any other chemical processes. AAC blocks are manufactured using a mix of generally available raw materials like flyash, cement, lime and gypsum.

## ABOUT US

Pionniercrete is promoted by Pionnier Group, a roofing solutions company, to help people construct their dream homes in an eco-friendly way. For over 11 years, Pionnier Roofing has been manufacturing products that lead the market in performance, quality and value. With over 20 years of experience, our team of professionals constantly seek and acquire new skills to stay ahead in business. We have state-of-the-art manufacturing units infused with Japanese and European technology at Palakkad, Kasaragod in Kerala and Halkarni in Maharashtra to meet the ever increasing demand for Pionnier tiles.





## THE PIONNIERCRETE PROMISE

- ▶ Quick delivery across South India.
- ▶ Pionniercrete adheres to ISI specified and focused testing methods.
- ▶ Speedy Construction compared to conventional building practices.



## MISSION TO BUILD

Our mission is to offer qualitative building materials at a fair and market-competitive price. To achieve this further, we have put into use the latest techniques and technology and employed the best professional teams to offer you smart building solutions. At Pionnier, the customers are our top priority and we believe in building deeper and long-lasting relationships with them.

## VISION TO GROW

Our Motto is to increase our stakeholder value and achieve sustainable growth through professional excellence, customer satisfaction and dynamic innovations. We also aspire to strengthen our position as one of the leading building materials company of the country. We aim to do this by building on our positive reputation and expertise of our people.



# GREEN BUILDINGS. GREENER FUTURE.

## LITE ROC

LITE ROC is being manufactured in a state-of-the-art plant, strategically located at Kasaragod in Kerala. It is Kerala's first AAC Plant and it caters to all South Indian markets. Every batch manufactured, is tested at our lab for its compressive strength, dry density and accuracy in shape and size. We manufacture sustainable, easy-to-install AAC Blocks which can be used to construct and reconstruct homes and buildings.

## CHOOSING AAC FOR A BETTER FUTURE



Light in  
Weight



Eco-friendly



Better savings in  
steel and concrete



Sound  
Insulation



Fire Resistant



Thermal  
Insulation



Low Water  
Absorption



Termite Free





### RECYCLED

AAC Blocks are made from recyclable materials like Fly Ash which is generated in abundance by Thermal Power Plants, making it safe for the environment. They are a superior alternative to conventional building blocks/bricks which use natural mined resources like clay or crushed stone powder.



### CONSERVING NATURAL RESOURCES

The making of LITE ROC consumes just 1/4th of the weight of materials used in conventional building blocks/bricks.



### LOW ENERGY CONSUMPTION

LITE ROC AAC Blocks not only consume less fossil fuels but also consume less energy in transportation due to lighter weight.



### WATER SAVER

LITE ROC AAC Blocks require just wetting the blocks by a sponge on the surface, before use. They also do not need any curing and hence save water.

#### AVAILABLE SIZES

600 x 200 x 100 mm

600 x 200 x 125 mm

600 x 200 x 150 mm

600 x 200 x 200 mm

600 x 200 x 230 mm

PROPERTY	UNIT	SPEC
Size Tolerance	MM	+/- 1.5
*Compressive Stregth	N/MM2	4-5
Dry Density	KG/M3	550-650
Sound Reduction Index	Db	40-45 (200 MM Wall)
Fire Resistance	Hrs	2-6 based on thickness
Thermal Conductivity	W/M-K	0.10-0.14
Drying Shrinkage	%	0.04
Water Absorption By Capillary Action In 48 Hrs	%	Max 20

\*Gr I as per IS2185 (part - 3)

## INSTALLATION PROCEDURE

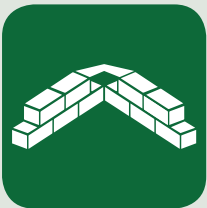
- ▶ Prepare cement and sand for base course in the ratio 1:5
- ▶ Prepare top filling in the ratio 1:8
- ▶ Mix ROCFIX thin bed mortar for a minimum of 5 minutes. Remix before application.
- ▶ The consistency should allow mortar to flow easily through a notched trowel, leaving the shape of the teeth in the mortar bed (mortar will have a toothpaste like consistency).

Mortar workability time is **4 hours**.



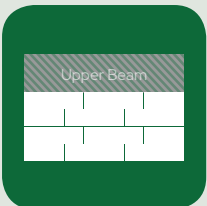
### FROM BOTTOM TO TOP: LAYING THE FIRST COURSE

Using a brush, clean the block surface before installation. Lay the first course over a semi-dry cement-sand mortar levelling bed. Corner blocks are laid first and the first course should be completed before the second course installation. Once the corner blocks are placed, use a brush to clean the next block surface before mortar application. Ensure that the top level of all blocks is at the same height. This can be checked with either a straight rod or a simple level-o-meter. Any undulation might lead to uneven load and result in cracks.



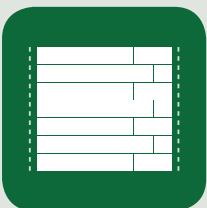
### BEGINNING WITH CORNERS

Set the first corner block in the sand-cement mortar and adjust the joint as needed. To achieve the required height, lower or raise the block by tapping down with a rubber mallet. For the next block, apply mortar to the vertical joints using an appropriate notched trowel. The trowel should be as wide as the block. After installing each unit, plumb and level should be checked immediately with mason's level. Corners are to be made in an alternate fashion, so that both walls fit into each other.



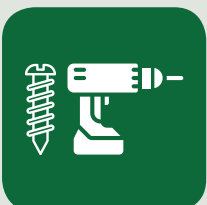
### TOP LEVEL

The space between the upper beam/ top plate and bottom block just below it is to be filled with smaller blocks to adjust the building height.



### LEVEL

The level from the base to the top layer should be properly horizontal. There should not be any gaps between the joints.



### FASTENERS

Anchors used with AAC shall be made of plastic or nylon. Wood, fiber, lead, metal or expansion anchors are not recommended. To make holes for the fasteners, power drills are used. The anchor should pierce tightly in the hole to avoid rotation when placing the screw.



# BONDED FOR LIFE



## **ROCFIX | POLYMER MODIFIED AAC BLOCK JOINING MORTAR**

ROCFIX is a specially designed and premixed product for bonding AAC Blocks together, which helps speed up the building process and provides very high adhesion strength. The AAC Blocks Adhesive, ROCFIX is specially formulated with cement, lime, sand and specialized polymers, which help bind the blocks together and resist separation.

## STICKING TO OUR WORD

ROCFIX has the following advantages when used with AAC blocks. It is the most compatible adhesive, formulated specifically for LITE ROC AAC Blocks, giving strength and durability with ease of application.



Load Bearing



High Strength



No curing  
required



Improved  
adhesion



Easy to use



Fast  
Application



Economical



## DIRECTIONS FOR USE

**Surface Preparation:** Surfaces must be dry, clean and free from all impurities.

Wet the AAC Block with a sponge

**Mixing:** Slowly add ROCFIX into the water and mix it by trowel or a slow speed mixing machine. Mix for 3 to 5 minutes till a smooth mix without lumps is obtained.

**Application:** Place the mixed mortar on the block in thin layers of 2 to 3 mm with a trowel. Check the plumb and level of the wall while laying the blocks.

## Pionniercrete India Pvt. Ltd.

Sales Office: 1st Floor, MTI Complex, Kannur Road, West Hill,  
Kozhikode- 673005, Kerala, India, Ph: 0495 2384001/4099709  
Plant: Plot No. 90,93 & 94, Kinfra Small Industries Park,  
Mayipadi, Kasaragod- 671124, Kerala