

LiteWalls®

Autoclaved Aerated Concrete Products

BUILDING A

SOLID FOUNDATION

Rajviz Private Limited is a dynamic company, continuing to lead the way in innovative ready AAC Blocks supply. We are ready to service the industry with all its construction supply needs!

BRAND

LiteWalls®

We supply a wide range of products to many different sectors of the construction industry. This includes commercial buildings, high-rise, institutional, and residential housing.



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ABOUT US

LiteWalls™ is owned and operated by **Rajviz Private Limited** company, founded by Mr. Vishnu Angarakhe, possessing 30+ years of experience in the construction and infrastructure industry, which provides solutions to the construction industry across Maharashtra.

Our expertise is providing you with high-quality AAC Block products across Mumbai MMR regions.

We are preferred construction solution and advisory company for construction developers all across Mumbai MMR regions, owing to our commitment to deliver excellence in construction material.

At our company, we pride ourselves on having a team of highly experienced professionals who are dedicated to delivering exceptional service for all your construction needs. Our team possesses superior customer service experience and knowledge in the industry, allowing us to meet all of your concrete needs, regardless of size or complexity. Moreover, we have conducted extensive research in the industry to ensure that our products and services are of the highest quality. No matter the size or complexity of the project we emphasize safety in all aspects of our operations.

We understand and appreciate the value of your business, so we have made it our mission to provide you with quality light weight AAC blocks. We deliver in large or small quantities to homeowners, contractors, and developers, you can depend on us for your next project.

LiteWalls[®]

**AUTOCLAVED AERATED CONCRETE
AAC BLOCK**



**FOR
MASONRY
WORK**

LiteWalls™ AAC BLOCK

LiteWalls™ is not any ordinary AAC block! A specially processed, aqueous solution mixed with high silica sand, lime stone, and fly ash gives the strength, stiffness, and durability to stand up to tough weather conditions.

LiteWalls™ offers quality AAC blocks made in our 100% automatic processing plant with advance technology at an affordable price. Build your dream home with LiteWalls™ AAC block. Our years of research have helped us reach this final stage to bring you the best AAC block in Maharashtra, India.

LiteWalls™ AAC blocks are a lightweight, highly insulated, cement based building material. **LiteWalls™** blocks are cost effective, provide greater safety standards than bricks and are very easy to use. These eco-friendly blocks can reduce your build time by up to 50%. It's never been easier to build greener!

LiteWalls™ AAC blocks are manufactured using fly ash as a raw material resulting in an ecologically neutral product.

LiteWalls™ manufacturing process is environmentally friendly with minimal harmful emissions, using very few non-renewable resources, coupled with minimal waste during the production process



AAC BLOCK

LiteWalls™ Aerated Autoclaved Concrete (AAC Blocks) is an eco-friendly material used to produce lightweight, heat-resistant, and durable building blocks. The AAC Blocks developed in the 1920s by the Swedish, it is three times lighter than the ancient red bricks. AAC Blocks majorly consist of AIR (60%-85% by volume) and are produced by the method of autoclaving and high pressurised curing of aerated materials. AAC Blocks soon became one of the most used building materials in the construction industry around the world. These blocks are manufactured using Aluminium powder, fly ash, cement, lime and gypsum. The reaction of aluminium with lime, water and silica releases Hydrogen gas resulting in a porous structure of Calcium Silicate Hydrate which is cut and steam cured at high temperature (210 °C) and pressure (12Kg) for 10-12 hours.

The resultant AAC blocks have a wide variety of commercial, industrial and residential applications. In comparison with normal clay bricks, AAC blocks stand superior in their properties and cost. Also, our AAC blocks are available in various sizes to meet all construction requirements. In addition to reducing the cost of plastering, these blocks are water-resistant and offer high strength over time. AAC blocks with their cellular structure can be easily cut with a carpenter's saw, and driving nails can be done easily. With AAC blocks, weight reduction is the primary benefit for structural reasons, saving steel reinforcement in foundation up to 25% resulting in substantial savings of materials up to 10% thereby reducing the construction cost.

BUILDING A SOLID FOUNDATION



LIGHT WEIGHT



Usage of these lightweight cement bricks also known as AAC blocks reduces the overall dead weight of a structure, thereby allowing the construction of firmer and taller buildings.

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COST SAVING



Being 8 times the size of clay bricks, AAC wall construction requires 1/3rd of jointing mortar, saving up to 66% of the cost. Significantly saving up to 25% steel and 10% concrete.

FAST CONSTRUCTION



3

AAC Blocks require a lesser number of joints, which results in saving time, jointing material and labour.



WORKABILITY

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4

AAC blocks can be easily carved, drilled, nailed, milled and shaped to fit individual requirements. They are 3-4 times lighter than traditional concrete, which leads to advantages in transportation and material handling.



VERSATILE

AAC Blocks ensure a smooth and accurate masonry profile and are also used for renovation/alteration purposes.



BENEFITS



EARTH QUAKE RESISTANCE

The usage of AAC blocks reduces the overall dead weight of a structure. This reduces the impact of the earthquake on a building making AAC Blocks earthquake resistant.



FIRE RESISTANCE

Non-combustible nature of AAC blocks provides fire resistance depending on the thickness up to 16000 degree centigrade (°C). This offers fire resistance for about 2-6 hours.



ECO FRIENDLY

The manufacturing process emits no pollutants nor creates any by-products or toxic wastes. Manufacturing of AAC blocks is done from natural raw materials.



ENERGY EFFICIENT

AAC Blocks is 100% Green Building Material is LEED R certified buildings. It requires the Least amount of energy and material per m3 of product. AAC uses fly ash up to 65% of its weight making it resource efficient.



LONGER DURABILITY

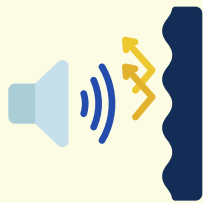
AAC blocks have longer life, high compressive strength and resistant to all weather conditions compared to other construction materials. These blocks are proven to be water damage free. Leading to Increased value for investment.



WATER & MOISTURE RESISTANCE

AAC structure doesn't allow capillary action that is impervious to water. AAC possesses excellent structural integrity, and moisture resistance, whether caused by wind, rain or standing water.

BENEFITS



SOUND INSULATION

AAC Blocks are concrete materials, providing a sound insulation value of 7dB greater than another building materials ensuring peaceful living conditions. Therefore ensures peaceful living conditions



PEST RESISTANCE

AAC Blocks are made up of the inorganic materials in their constitution which in turn helps in preventing or avoiding the growth of termites, pests and molds. This protects the building from the damages or losses caused by pests/termites/molds.



NON TOXIC

AAC blocks do not cause any harm to the environment and human health as they do not contain toxic material nor does it emit toxic gases during production. The manufacturing is completely environment friendly.



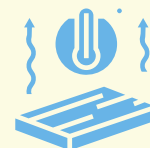
LABOUR COST REDUCTION

The speed and ease of overall structure assembly using AAC Blocks minimize labour costs and improve their work efficiency.



GOOD FINISH

The automatic manufacturing process gives AAC exceptional dimensional accuracy and a smooth surface with an outstanding finish to walls.



THERMAL INSULATION

AAC blocks provide well-insulated interiors, keeping out warm air in summers and cold air in winters, thereby reducing air conditioning costs by 30%.

COMPARISON

PARAMETER	AAC BLOCKS	CLAY BRICK
Size	(600mmx200mmx100-300mm)	(230mmx115mmx75mm)
Density	550-650kg/Cum	40-75-kg/cm ³
Compressive strength	Varies between 3.5 to 4.5 N/mm ²	Varies between 40-75-kg/cm ³
Precision in Size	/-1mm	/-5mm
Sound Insulation	37-49 dB	Normal
Fire Resistance	4-6 Hours depending on thickness	2 hours
Water Absorption	Should not be more than 10% of its weight (If the block or brick absorbs more water than the above specified limit, it causes adverse effect on the strength and durability)	Should not be more than 20% of its weight
Thermal Conductivity	It transfers heat between 0.21 - 0.42 W/mk	It transfers heat between 6 - 1.0 W/mk
Moisture Resistance	Better than the red brick	Average
Savings in plaster	Overall 35% cut down in the cost of plastering	
Speed of construction	More elevated as the sizes of blocks are big and the weight is less.	Comparatively lower
Environment Impact	Made up of ashes, thus does no soil is consumed	Around 3.2 kgs of fertile soil is used to produce one brick
Maintenance	The superior properties of AAC blocks reduce the maintenance cost	Very High
Water usage during manufacturing	Low, only used for auto-claving	High, needs curing before use

PRODUCT SPECIFICATION

Product	AAC BLOCK
Product Details / Size of Block	Length 600 x Width 200/240 x Thickness 100 TO 225 mm
Oven Dry Density	551-650 Kg/Cum
Compressive Strength	4+ N/mm ²
Thermal Conductivity (K Value)	0.10 W/mK (on average)
Resistant to Fire	2-6 hrs depending upon thickness
Drying Shrinkage	0.10%
Design Gross Density	780 Kg/Cum. (app.)
Sheer Strength	0.6 N/mm ²

Specification of AAC Block work:

Providing and laying of Autoclaved Aerated Concrete (AAC) Block masonry using blocks having dimensions of 600 mm x 200 mm. thickness ranging from 100 mm to 225 mm conforming to I.S. :2185(Part-III). The joining cement sand mortar in the composition of 1:6 (Cement: Sand) shall be used with suitable plasticizer (optional).

Sand having modulus of fineness 1.1 shall be used. The horizontal and vertical joint thickness shall be approximately 3mm. In case of partition walls (100 mm/125mm thick.) the joint reinforcement shall be placed at every alternate course to be anchored properly with the main structure. All other structural requirements like stiffening of masonry joint reinforcement etc. in the AAC masonry work strictly be carried out as per instructions laid down in IS:6041-1985, IS:1905.



OFFICE:

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