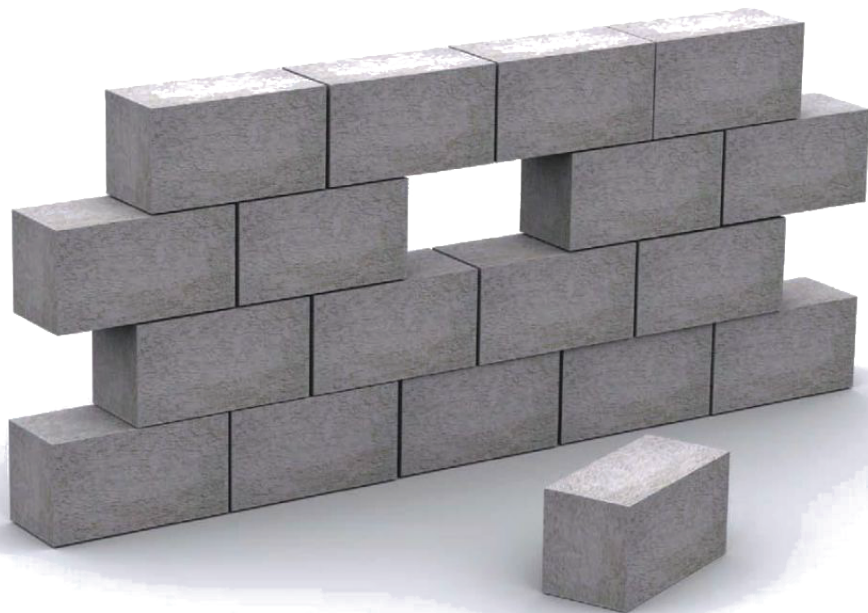




 **MOLTERA**[®]
AAC LIGHT WEIGHT CONCRETE BLOCKS



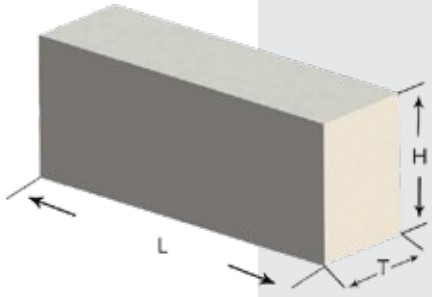
LIGHTER
STRONGER
EASIER...

CUBIC METRE (M³) CALCULATIONS

1 M³ = 550 Nos of Red Clay Bricks @ Density 1800 - 2000 Kg / M³ (Weight)

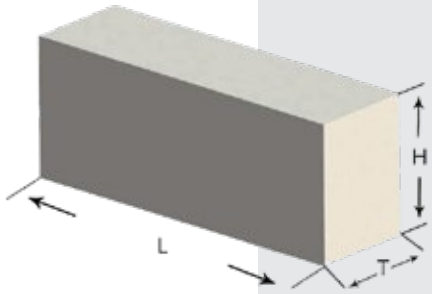
Average Density of AAC Blocks = 700 - 800 Kg / M³ (Weight)

2 Feet (600mm) AAC Blocks



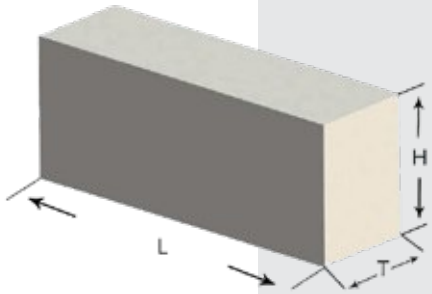
Description	Length	Height	Thikness	No. of Blocks / 1M ³
4 Inches (4")	600 mm	200 mm	100 mm	83 Nos
6 Inches (6")	600 mm	200 mm	150 mm	55 Nos
8 Inches (8")	600 mm	200 mm	200 mm	42 Nos
9 Inches (9")	600 mm	200 mm	230 mm	36 Nos

20 Inches (500mm) AAC Blocks



Description	Length	Height	Thikness	No. of Blocks / 1M ³
4 Inches (4")	500 mm	200 mm	100 mm	100 Nos
6 Inches (6")	500 mm	200 mm	150 mm	67 Nos
8 Inches (8")	500 mm	200 mm	200 mm	50 Nos
9 Inches (9")	500 mm	200 mm	230 mm	43 Nos

18 Inches (450mm) AAC Blocks



Description	Length	Height	Thikness	No. of Blocks / 1M ³
4 Inches (4")	450 mm	200 mm	100 mm	111 Nos
6 Inches (6")	450 mm	200 mm	150 mm	74 Nos
8 Inches (8")	450 mm	200 mm	200 mm	56 Nos
9 Inches (9")	450 mm	200 mm	230 mm	48 Nos

HISTORY OF AAC BLOCKS

AAC Blocks History Autoclaved Aerated Concrete (AAC), also known as Autoclaved Cellular Concrete (ACC), and Autoclaved Lightweight Concrete (ALC) is a lightweight, precast, foam concrete building material invented in the mid-1920s that simultaneously provides structure, insulation, fire and mold resistance and various other advantages. It is also an environment friendly product, as it is manufactured using 65-75 % of sand / fly ash (by weight) . Due to its many desirable attributes, AAC Blocks has gained massive popularity in Northern, Western and Southern India with almost 80 percent of the constructions using AAC Blocks as a replacement of the traditional clay bricks. In the North Eastern region, it is gaining popularity since 2012 and is looking to replace the use of traditional clay bricks completely AAC was perfected in the mid-1920s by the Swedish architect and inventor Dr. Johan Axel Eriksson working with Professor Henrik Kreuger at the Royal Institutes of Technology. The process was patented in 1924. In 1929, production started in Sweden at the city of Yxhult. From "Yxhults Anghardade Gasbetong" later became the first registered building materials brand in the world : Ytong. The second major international cellular concrete Hebel brand goes back to company founder and technicians Josef Hebel from Memmingen. In 1943, the first Hebel-Plant was opened in Germany. Originally Ytong autoclaved aerated concrete in Sweden was produced with alum shale, whose combustible carbon content made it beneficial to use in the production process. Unfortunately, the slate deposits used for Ytong in Sweden also contained a very low level of natural occurring uranium, which causes the material to release radioactive radon gas in the building. By using new recipes, containing only Quartz sand/Flyash, calcined gypsum, lime (mineral), cement, water and Aluminium powder, after 1975, Ytong produced a new type of aerated concrete block which doesn't contain alum slate anymore and thus the problem of radon exposure from this raw material was eliminated. The resulting process of producing white autoclaved aerated concrete is state of the art of technology, used by Brikolite and other producers all over the world.

KNOW ABOUT VISION BLOCKS

The VISION AAC Block is a lightweight material produced by mixing silica rich material (fly ash/pond ash), cement, lime, gypsum, aluminium powder/paste and water. Aluminium acts as a catalyst. It generates hydrogen gas upon reacting with cement and lime during the AAC manufacturing process. Hydrogen gas escapes from the concrete mix imparting a porous structure to AAC blocks VISION AAC Blocks are so lightweight that it weighs only 1/5th of weight of the standard concrete, which results in lower transportation costs, faster work-flow, lower material handling costs etc. **The VISION AAC Block is a "ready to build"** material, requiring no onsite curing time. It has unparalleled workability because it can be cut, drilled, nailed screwed and milled with common hand tools. We aim to deliver excellence with integrity and respect

 **MOLTERA**®

AAC LIGHT WEIGHT CONCRETE BLOCKS



STRUCTURAL SAVING:

MOLTERA AAC is extremely light weight which reduces its dead weight leading to reduced consumption of steel in the construction of a building. This offers excellent savings. Apart from this the use of plaster and mortar is also reduced.

SOUND ABSORPTION:

MOLTERA AAC offers unmatched acoustic insulation. Boast high sound absorption and are the obvious choice, especially in noisy areas, can also be used as sound barriers.

LIGHTWEIGHT:

MOLTERA AAC is 3 times lighter than traditional bricks, making it easier to transport and reducing construction time. Apart from that, labour time is greatly reduced ensuring cost effectiveness.

WATER PROOF:

MOLTERA AAC has a microscopic cellular structure of aerated pores, which makes buildings built with Brikolte almost 80 % water resistant . This property can be further enhanced by use of silicone additives.

WORK ABILITY & FLEXIBILITY:

MOLTERA AAC can be easily cut / drilled/nailed /grooved to fit custom needs. This allows the installation of electrical and sanitary fittings even after structure construction is complete.

ECO FRIENDLY:

MOLTERA AAC made out of flyash, an industrial waste via a non polluting process of steam curing comprising of non-toxic elements, AAC Blocks are the most eco friendly product for construction.

HIGH STRENGTH:

Steam Curing at high pressure during the autoclaving process gives MOLTERA AAC Blocks unprecedented strength to weight ratio surpassing concrete and exceeds the Indian Building code requirement.

EARTHQUAKE RESISTANT:

The effect of an earthquake is proportional to the weight of the structure. MOLTERA AAC Blocks being light weight subdue any damage by quakes or high winds largely.

FIRE RESISTANT:

Owing to the unique cellular- bee-hive like structure the fire resistance quotient of MOLTERA AAC Blocks is very high, It can withstand temperatures upto 1400 C and has a fire rating of 4-5 hours.

PEST RESISTANT:

With the precision ratio of MOLTERA AAC Blocks being very high, results in smooth finishing preventing pests. The use of inorganic material also inherently prevents mold and fungi growth.

FASTER CONSTRUCTION:

MOLTERA AAC Blocks cut down on construction time by over 25 % . Being lighter in weight is reduced and it also sets and hardens quickly.



MOLTERA AAC BLOCKS VS CLAY BRICKS



AAC BLOCKS

MOLTERA AAC BLOCKS IS LONGER IN SIZE, LESSER IN JOINTS, LESS MORTAR REQUIRED.

BOTH THE FACES OF RENACON ARE FAIR FACES- INNER PLASTERING IS NOT NECESSARY.

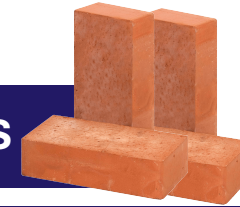
MORE MASONRY OUTPUT- REDUCES LABOUR COST

REDUCES THE LOAD ON FOUNDATION, THEREBY LESSENING THE IMPACT OF EARTHQUAKES.

COMPUTERISED DESIGN MIX- HENCE CONSISTENT IN QUALITY.

KNOWN FOR ITS DIMENSIONAL ACCURACY AS PER INTERNATIONAL STANDARDS.

RENACON IS MADE OF NON TOXIC INGREDIENTS IN NON POLLUTING MANUFACTURING PROCESS.



CLAY BRICKS

RED CLAY BRICK IS SMALLER IN SIZE, MORE JOINTS HAS LESSER INSULATION AND REQUIRES MORE CEMENT MORTAR

REQUIRES PLASTERING ON BOTH THE SIDES.

LESSER MASONRY OUTPUT- INCREASES LABOUR COST

INCREASES THE DEAD WEIGHT ON FOUNDATION AND FLOORS.

MANUAL DESIGN MIX - LACKS QUALITY CONSISTENT MADE OF ONLY "C" CATEGORY CLAY IN SOUTH INDIA.

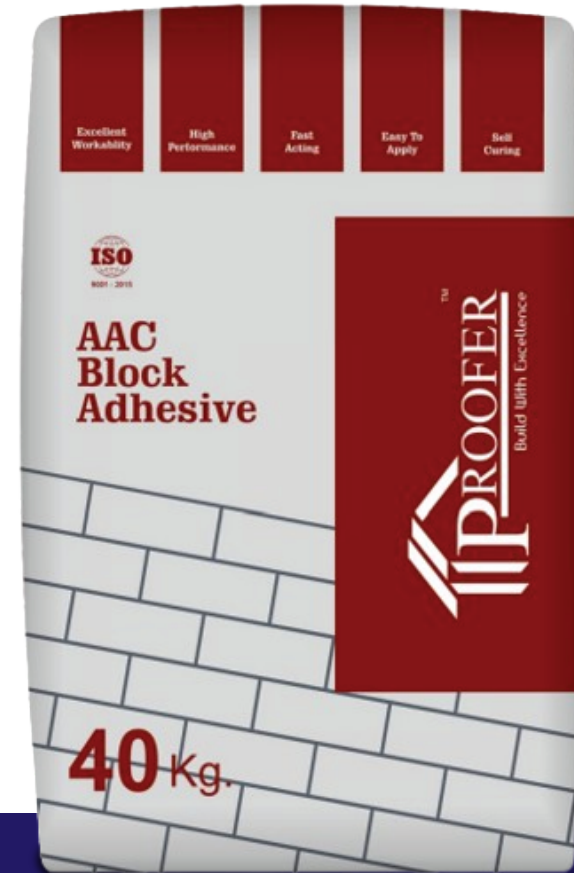
DEVIATE FROM THE REQUIRED METRIC STANDARDS WHICH IS 19CMS X 9 CMS X 9 CMS

EACH BRICK CONSUMES 3.2 KG OF TOP SOIL OF EARTH THE MINING OF WHICH IS RESTRICTED AND BANNED BY THE JUDICIARY, GREEN TRIBUNAL AND MOEF



AAC BLOCKS ADHESIVE

- Speed Construction
- Stronger and Smoother
- Consistency In Adhesive Quality
- Thin Joint Regulate the Transfer Heat Through Walls
- Thermal Insulation
- No Curing Required After Block Work is Done
- Improved Adhesion Between Two Blocks
- Magicrate AAC Block Jointing Mortar Prevents Seepage and Water Percolation During and After Application Avoiding Shrinkage Cracks and allowing Better Leveling



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