



The Green Way To Build



Autoclaved Aerated Concrete Blocks

What is AAC?

The Autoclaved Aerated Concrete (AAC) material was developed in 1920 in Sweden. It has become one of the most used building materials in Europe and is rapidly growing in many other countries around the world.

Autoclaved Aerated Concrete is a lightweight, load-bearing, high-insulating, durable building product, which is produced in a wide range of sizes and strength.

AAC offers incredible opportunities to increase building quality and at the same time reduces costs at the construction site.

AAC is produced out of a mix of pulverized fly ash (PFA), lime, cement, gypsum, water and aluminium and is hardened by steam-curing in autoclaves. As a result of its excellent properties, AAC is used in many building constructions, for example in residential homes, commercial and industrial buildings, schools, hospitals, hotels and many other applications. The construction material AAC contains 60% to 85% air by volume.

About Us

Eco Green Products Pvt. Ltd. is an endeavor towards building an eco-conscious society where nature and future can grow harmoniously. Modern day construction practices take many points in to consideration. While aesthetic and strength are the prime factors, products are also judged on the attributes such as safety, cost-effectiveness, eco-friendliness and workability.

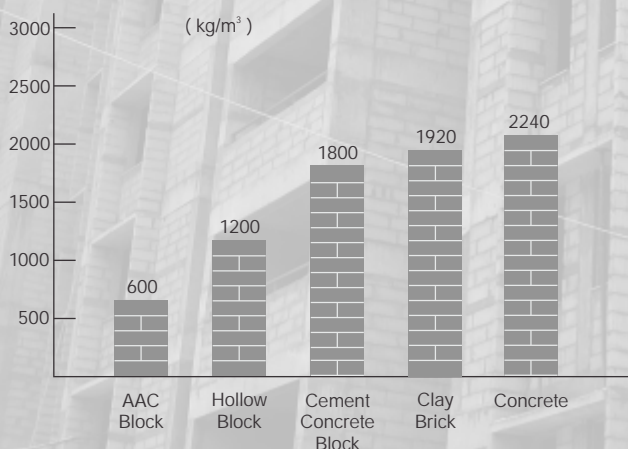
These many attributes propelled us to present Eco Green Autoclaved Aerated Concrete Blocks- An ecofriendly, cost-effective and safe brick solution which preserves the harmony of the nature and saves your project from heavy construction cost. Truly it proves to be a solid option to traditional clay brick.

Based at Gandhinagar, Gujarat, we at Eco Green Products Pvt. Ltd. are poised to revolutionize and transform the conventional construction practices with innovative and effective Eco Green AAC Blocks.

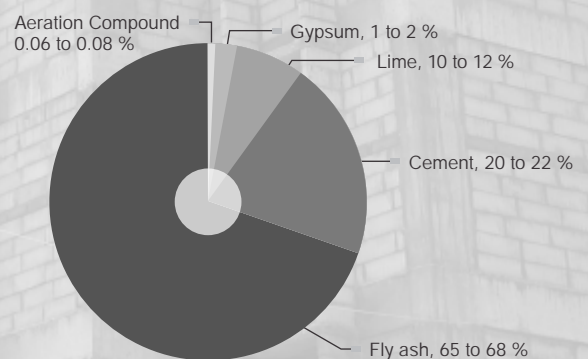
ADVANTAGES

- Excellent thermal insulation
- Light weight
- Faster construction
- Sound insulation and absorption
- Environment friendly
- Perfect size and shape
- Superior fire resistance
- Earthquake resistance
- High compressive strength
- High resistance to water penetration
- Pest resistance
- Versatile
- Non-toxic
- Prevent efflorescence

Density of various Material



Facts of ECO GREEN AAC Blocks



Technical Specification

Property	Units	AAC Block	Clay Brick
Size	mm	600 x 200 x (75 to 300)	230 x 75 x110
Size Tolerance	mm	+/- 5mm in length * +/- 3mm in width & height	±05 to 15
Compressive Strength	N/mm ²	Min 4.0 *	2.5 to 3.5
Normal Dry (Oven Dry) Density	Kg/m ³	551 to 650 *	1800
Thermal Conductivity "K"	W/m-k	Max 0.24 *	0.81
Drying Shrinkage	%	Max 0.05% *	-
Fire Resistance	Hrs.	2 to 6 (Depending on thickness)	2
Sound Reduction Index	Db	45 for 200 mm thick wall	-

* As per IS 2185 Part 3

Comparison between AAC Block and Clay Brick

Parameter	AAC Block	Clay Brick
Structural Cost	Steel saving upto 15%	No saving
Cement Mortar for Plaster & Masonry	Required Less due to flat, even surface and less number of joints	Requires more due to Irregular surface and more number of joints.
Breakage	Less than 2%	Average 10 to 12%
Construction Speed	Speedy construction due to its big size, light weight and easy to cut in any size or shape.	Comparatively slow
Quality	Uniform & Consistent	Normally varies
Fitting & Chasing	All kind of fitting and chasing possible	All kind of fitting and chasing possible
Carpet Area	More due to less thickness of walling material	Comparatively Less
Energy Saving	Approx. 30% reduction in air-conditioned Load	No such saving
Chemical Composition	Flyash used around: 65 to 68% which reacts with lime and cement to form AAC	Soil used contains many inorganic impurities like sulphate etc. resulting in efflorescence

Calculation Sheet

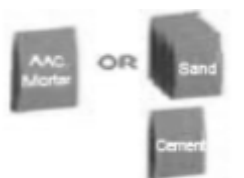
Length (mm)	Height (mm)	Width (mm)	No of Pcs (per m ³)	Work in Sq ft. ** (per m ³)
600	200	100	83.33	116.33
600	200	125	66.67	93.07
600	200	150	55.56	77.56
600	200	200	41.67	58.17
600	200	230	36.23	50.58

** Assumption: 12 mm Mortar Thickness

Guideline

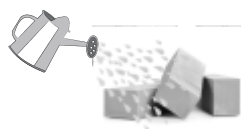
(Refer IS 6041-1985 code of Practice for Construction of Autoclaved Cellular Concrete Block Masonry)

Mortar For Masonry



The blocks shall be embedded with a mortar, the strength of which is relatively lower than that of the mix used for making blocks in order to avoid the formation of cracks. A 1:6 cement - sand mortar may be used. (Refer IS 6041-1985 Para 3, 3.9.2)

Wetting of Blocks



These blocks need not be wetted before or during the laying in the walls; in case the climatic condition so required, the top and the sides of the blocks may be slightly moistened. (Refer IS 6041-1985 Para 6, 6.1)

Coping Beam



Horizontal coping at 0.9 to 1.2 mtr height & Vertical coping in centre if wall length is more than 3 mtr, with 2nos 8mm reinforcement, M20 concrete. (Refer IS 6041-1985 Para 4, 4.6.5.1 & 2)

Storage



The blocks shall be stored in such a way as to avoid any contact with moisture on the site. (Refer IS 6041-1985 Para 5, 5.1)

Mortar Thickness



Keep it limited to 10 to 12 mm in cement sand mortar (Refer IS 6041-1985 Para 7, 7.1) & 3 to 4 mm in ready mix mortar.

Plaster



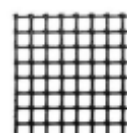
Plaster thickness required Internal: 10 to 12mm, External: 15 to 17mm (Refer IS 6041-1985 Para 12)

Electric & Sanitary Chases



Chase to be grooved before plaster of wall and use electric wall chasing machine for zero vibration & good quality work. Do not chase on joints.

Beam & Column



Use wire mesh/fiber mesh for RCC-Masonry joints & coping

Disclaimer

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