



GREENSTONE
AAC BLOCKS



www.greenstoneaac.com

Greenstone AAC Blocks

Aesthetic Appeal with Innovation and Durability

Greenstone Building Products Pvt. Ltd. is the manufacturer and supplier of the best quality AAC Blocks. We manufacture these AAC blocks with the help of trained and experienced professionals under efficient management.

Greenstone is not only a leading brick company in the industry but also an innovator for using the state-of-the-art manufacturing technologies in building 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 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.

Features of AAC Blocks



Fire Resistant



Earthquake resistant



Long Lasting



Pest Resistant



Faster Constructions



Cost Saving



Sound Proof



Lightweight



Technical Specification

| Property | Units | AAC Block | Clay Brick |
|-------------------------------|-------------------|--|----------------|
| Size | mm | 600 x 200 x (75 to 230) | 230 x 75 x 110 |
| 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 & 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 |

GREENSTONE Guidelines

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

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 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



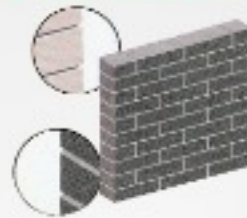
These blocks need not be wetted before or during the laying in the walls; in case the climatic condition so required, the top and the sides of the blocks may be slightly moistened. (Refer IS 6041-1985 Para 6, 6.1)

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)

Mortar Thickness



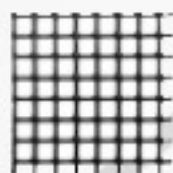
Keep it limited to 10 to 12 mm in cement sand mortar (Refer IS 6041-1985 Para 7, 7.1) & 3 to 4 mm in ready mix mortar.

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

Plaster



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