AVANTHA GROUP COMPANY | biltech™

WHEN IT COMES TO SMART INNOVATIONS, THIS IS OUR ACE

Autoclaved Aerated Concrete (AAC) is a fully integrated building system of panels and blocks that are used for residential, commercial, industrial buildings and add-on floors & extension. AAC, a lightweight green building material, is fire resistant and has good thermal insulation, solid structure and is easy to work with.

Biltech Building Elements Limited, an Avantha Group company, is engaged in the manufacture of this revolutionary building material in India under the name BILTECH-ACE. Currently BBEL has over 40% of the market share with a capacity of 9,20,000m^3 per annum. It also commands the status of the largest fly ash based AAC manufacturer in India.

WHAT GOES INTO BILTECH-ACE? LOTS OF THINKING FOR ONE

A mixture of fine fly ash, together with lime, gypsum and cement as binding agents, water and aluminium powder acting as a foaming agent, is made. The material is then trimmed, cut into shape and then loaded into Autoclaves, where they are steam cured for about 10-12 hours at 190°C under a saturated steam pressure of 12 bar.

BUILD YOUR STRUCTURE WITH QUALITY

BILTECH-ACE blocks can be used in external as well as internal walls. They are manufactured as per IS 2185 (III)-1984 and masonry is carried out as per IS 6041-1985 and IS 1905-1987. BILTECH-ACE blocks can be cut virtually in any shape or angle using normal hand tools.

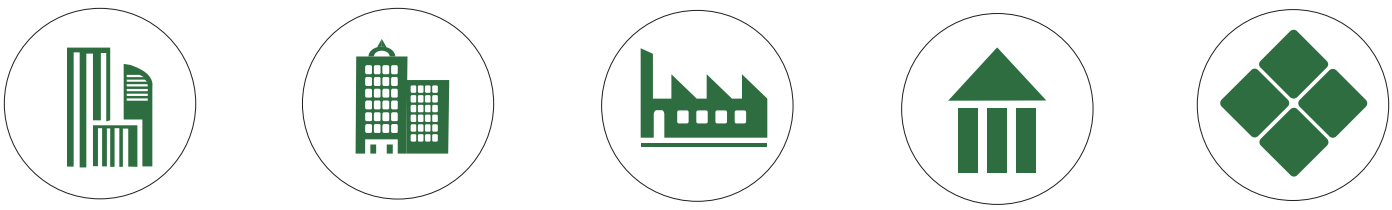
Product Data

Type	Length	Height	Thickness
Block	625mm	240, 250mm	100mm to 300mm (with an increment of 25mm)

Technical Specification

PROPERTIES	VALUES
Oven Dry Density	551-650Kg/m^3
Compressive Strength	As per IS 2185 part (III)
Thermal Conductivity	0.16W/M deg. K (Average)
Resistant to Fire	2-6 hrs. depending upon Thickness
Sound Reduction Index	37-49dB depending upon Thickness
Design Density	800 Kg/m^3 (Appx.)

AREA OF APPLICATION



Residential Buildings | **Commercial Buildings** | **Industrial Buildings** | **Institutional Buildings** | **Add-on Floors & Extension**

BILTECH-ACE REINFORCED ROOF/FLOOR PANELS

BILTECH-ACE reinforced roof/floor panels are used for adding new floors or for extension of existing structures. The roof/floor panels are manufactured as per IS 6073-1971 and can be designed up to superimposed loads (live load + finishing load) of 550 kg/m^2.

Product Data

Type	Length	Height	Thickness
Block	1 to 3 meters (as per span required)	625 mm	125 mm to 200 mm (depending on load and span)

BILTECH-ACE THERMOTILE

BILTECH-ACE thermotile can be laid on new as well as existing R.C.C. slabs for the purpose of thermal insulation. These thermotiles are used extensively for their durability and heat resistance.

Technical Specification

PROPERTIES	VALUES
Size	625x250 mm
Thickness	75 mm, 100 mm
Thermal Conductivity	0.16 W/M deg. K
Oven Dry Density	551-650 Kg/m^3
Compressive Strength	As per IS 2185 Part (III)

BUILDING A BETTER FUTURE, BLOCK BY BLOCK

- **LIGHT WEIGHT -** With 1/3rd the density of bricks and 1/4th the density of R.C.C., BILTECH-ACE helps in the reduction of dead loads on the structure.
- **HIGH THERMAL INSULATION -** The cellular structure of BILTECH-ACE blocks make it far better thermal insulator then bricks or R.C.C.
- **FIRE RESISTENCE -** Non-combustible and fire-resistant up to 12000C and up to 6 hours of direct exposure.
- **LOW MAINTENANCE -** AAC is an inorganic material impervious to rot, insects and other pests.
- **ENVIRONMENTALLY FRIENDLY -** The manufacturing process entails lower consumption of energy and there is minimal waste generation. No pollutants or hazardous waste are generated during production.
- **ENERGY EFFICIENT -** Millions of tiny air cells created during its manufacturing and the thermal mass of BILTECH-ACE contribute to providing excellent insulation leading to savings in recurring energy cost in summer and winter.
- **FIXING -** Doors and windows frames can be fixed in BILTECH-ACE blocks masonry by using screws with raw plugs or conventionally jamming holdfast with P.C.C.
- **PRECISION -** The process of manufacturing BILTCH-ACE products ensures constant and consistent dimensions. Internal walls (dry area) can be finished by direct P.O.P. eliminating the need of plastering.
- **ACOUSTIC PERFORMANCE -** BILTECH-ACE blocks absorb 60%-70% more air, offering sound attenuation of about 45dB-49dB with plaster which blocks out major sounds and disturbances.

Biltech Building Elements Limited

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