

CATEGORY BUILDING SYSTEMS



PRODUCT / TECHNOLOGY



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'KONCRETE' - KONARK AERATED CONCRETE REINFORCED PANEL

Alternate to brick/stone masonry construction.



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CONTACT DETAILS

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BRIEF

Konark Aerated Concrete Reinforced Panel are autoclaved aerated concrete panels manufactured using fly ash, cement, gypsum, lime, sand, aluminium powder, steel reinforcement, and anti corrosive paint. These panels are manufactured with modern technology and come in the form of ready to build wall, roof and floor which minimizes the use of materials and saves construction time enabling faster construction.

AAC panels are available in sizes with length ranging from 1m to 6m, width 600mm and thickness 150mm / 200mm / 250mm (with tongue & groove) for external wall and thickness 100mm / 125mm for internal wall or partition wall, which are suitable for multi-storied residential & commercial constructions, industrial warehouses and sheds, shopping malls, hospitals and small modular residential constructions.

These innovative AAC reinforced panels can be used for load bearing and non-load bearing applications. The conventional brick wall is essentially a wet wall construction making use of bricks laid over mortar whereas AAC wall construction is a dry wall construction requiring no water.



SALIENT FEATURES

- Light in Weight & durable
- High Thermal & acoustics insulation
- Speedy Construction Process
- Design flexibility, customizable, ease of working
- Energy efficiency
- Environment Friendly, utilizes Fly Ash as major ingredient
- Good Fire resistance
- Termite resistant
- Higher flexural strength
- Fewer Joints leading to less jointing mortar consumption and leak-ages
- Number of Auxiliary Columns can be minimized
- Intermediate bond beams can be eliminated
- Reduce structural cost because of light weight
- Less number of labour and storage space
- Better aesthetic look of construction.



ECONOMIC ASPECTS

- Due to lighter weight, the dead load of building gets reduced thereby enabling economical cost effective design
- Due to smooth finish and less joints, the demand of plaster and jointing mortar get minimised.



SUSTAINABILITY ASPECTS

- Resource efficiency: The major raw materials used is fly ash which is industrial waste, a by-product of Thermal Power Plants. Further, ACC Panel construction, being dry wall construction, do not require water for curing thus reducing water consumption. Being light weight, require less workforce for installation.
- Quality and Durability - AAC Panels are manufactured in collaboration with HESS Technology giving high quality product. As regards durability it has been used in Europe for over 70 years and Middle East for past 40 years.
- Speedy Construction – The panel are easy to install due to light in weight and readily availability of different size which reduce the construction time by 15-20%
- Energy Efficiency – It is having an excellent thermal insulation due to its tiny pores and the thermal mass of panel. Hence help in reducing the heating and air condition cost of building.
- Seismic Resistance - Due to light weight AAC Panel is very much effective for earthquake prone area. Embedded reinforcement makes the product with more compressive and flexural strength so lateral thrust resistance capacity is more.

SUITABILITY, AVAILABILITY

- Suitable for all climatic conditions.
- Panels can be used for all kinds of modern day construction like Residential Complex, Individual house for G+2/G+3 including roof panel, Commercial , Shopping Malls, Hotels & Resorts, Hospitals, Schools, Industrial Warehouses and sheds, Boundary Walls etc.



LIMITATIONS, IF ANY:

Although reinforced AAC panel has been a long – accepted construction material, the literature is not without reference to limitations in its use. Some frequent reported limitations are;

- Chipping of material.
- The face tends to get damaged easily, e.g. from scaffolding.
- External faces are highly hygroscopic and it needs protective render which can breathe and should be protected from standing water.
- Anchor fixing on units needs careful planning to avoid pullout, especially for dynamic loads.
- Caution should be exercised in transporting and handling the units to avoid damage.

MARKET LINKAGES

- The panels can be supplied Pan India.

MAJOR PROJECTS

- Government of West Bengal PWD, Alipore Division, Bhabani Bhaban New Building
- Haldia Port, West Bengal
- Mani Pushpak Nirman Pvt. Ltd. - Ware House at Bantala Leather Complex, West Bengal



CERTIFICATION/INDIAN STANDARD/ ENDORSEMENT

- PAC By BMTPC.
- BIS Certification.
- IGBC (CII) Certification
- GRIHA Certification
- IS: 6072-1971 & IS: 6073-2006 for AAC Reinforced Wall & Roof Panel

