







CATEGORY

PROVEN TECHNOLOGY CATEGORY: GHTC-INDIA



PRODUCT / TECHNOLOGY





BAUPANEL SYSTEM

Alternative to conventional bricks/blocks masonry wall



CONTACT DETAILS

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BRIEF

BAU panel system consists of panels of expanded polystyrene (EPS) and steel wire mesh which are applied with concrete at site. This system comprises of a layer of steel mesh on either side of EPS core welded together by steel trusses (orthogonal) which penetrate through EPS core. The panels are joined together in a configuration on site and sprayed on both sides with shotcrete to form a sandwich type construction.

The exterior of the panels shall be finished with weather proof coating or lined with conventional lining material while interior surfaces (walls) and ceilings shall be finished with water/ solvent based coating or lined with conventional lining material. The system is suitable for walls and floors of residential and commercial buildings.

The technology by the name BauPanel System was originally developed by BauPanel System S.L., Spain and BauPanel System India Pvt. Ltd. is a sister concern of the parent firm. The Certificate holder proposes to install the plant in India shortly for manufacture of the panels.

BauPanel can generally be used as load bearing walls and non-load bearing walls, partition walls and floor/roof slabs in residential and commercial building.





SALIENT FEATURES

- The system provides significant improvements in indoor thermal comfort by greatly reducing energy consumption.
- The panel has good acoustic behaviour, coupling with sound-absorbing materials.
- The expanded foam polystyrene used for panels is self-extinguishing.
- The building system gives full design flexibility as it offers a complete range of building elements such as loadbearing walls, curtain walls, floors and stairs.

ECONOMIC ASPECTS

- Fast and easy construction.
- Panels are both easy to handle and transport.
- Unskilled labours can be used for erection at site.
- It is cheaper than ordinary burnt Clay bricks and concrete blocks.





SUSTAINABILITY ASPECT

- The system provides significant improvements in indoor thermal comfort by greatly reducing energy consumption.
- No fire is required to produce bricks. Embodied energy is significantly less than ordinary burnt clay bricks
- Carbon emissions are significantly less than ordinary burnt clay bricks.

SUITABILITY AND AVAILABILITY

- Sold by Auroville PAN India anywhere.
- Suitable for all climate conditions.
- Door-Window openings & MEP all needs to be pre-planned before execution.
- BauPanel System should be constructed only with technical support or supervision by qualified engineers.





LIMITATIONS, IF ANY

- Panels shall have to be sealed properly.
- Not all soil can be used for CSEB. It is required to conduct testing of soil.

MARKET LINKAGES

Sold by Auroville Pan India.

MAJOR PROJECTS

- 2,698 earthquake resistant houses, after the 2001 Bhuj earthquake have been constructed using CSEB.
- Auroville Kindergarten, Solar kitchen Prarthna apartments, Tibetan pavilion, etc.

CERTIFICATION/INDIAN STANDARD/ENDORSEMENT

- Certified by BMTPC under PACS
- Gujarat State Disaster Management Authority (GSDMA) adopted CSEB for the rehabilitation of the regions affected by the January 2001 Gujarat earthquake in Kutch district
- Government of Iran (Housing Foundation) adopted CSEB for the rehabilitation of the regions affected by the December 2003 earthquake in Bam.

