



Expanded Clay Aggregate (ECA) Thermal Insulation Flooring Block

ECA Thermal Insulation Flooring Block is a composite material made from Cement, Fly Ash and Expanded Clay Aggregates (ECA).

ECA Thermal Insulation Flooring Block is introduced **1st** time in India.

The product is capable of offering excellent thermal insulation with a temperature difference up to 11°C.
 (subject to standard conditions applicable)

TECHNICAL PARAMETERS

Dimension	300 mm X 300 mm X 40 mm
Density (as tested)	608.377 kg/m ³
Unit Weight	2.2 kgs – 2.5 kgs
Thermal conductivity at 30.2 °C specimen mean temperature	0.1779 W/mK
Thermal Resistance for 40 mm thickness	0.2305 m ² K/W
Overall Heat Transfer Coefficient (U value)	2.6532 W/m ² K
Surface Finish	Smooth & Partially Rough (Ideal for Paint Application, Ceramic Tile, China Mosaic or any other exposed application)

Moisture content : Nil (Sample preheated at 70 °C in oven for 24 hours before testing for thermal conductivity).

Test method : Guarded Hot Plate Method as per ASTM C177 and ISO 8302.

KEY FEATURES

- Improves the thermal behavior of a building and saves electricity consumption.
- High thermal insulation efficiency, which does not change with time.
- Protects from thermal cycling effect and increases the building life.
- Light in weight and strong.
- Easy application and maintenance free.



LAYING

Same as **conventional ceramic tile** laying technique with 4-5 mm groove between flooring blocks.

P.S. Waterproofing is must before laying the ECA thermal insulation flooring blocks.

GROOVE FILL

After setting of **Expanded Clay Aggregate (ECA)** thermal insulation flooring blocks, fill the joints by mixture of fine sand + normal cement mortar or any other cementitious material.

Application

Lightweight Roof Top Thermal Insulation, Flooring Insulation, Podium Landscapes, Hardscapes and the like.



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Test Certificate Reference

Test Type : Determination of temperature drop across the insulation.

Test method : The specimen is kept on the hot plate at specified temperature and other surfaces are kept open to atmosphere. Once steady state is achieved, the temperatures of hot plate, top and bottom surfaces of specimen are measured using temperature sensors. The temperature drop is calculated as difference of top and bottom surface temperature.

Specimen Details : Expanded Clay Aggregate (ECA) Thermal Insulation Flooring Block.

Description of Product : Expanded Clay Aggregate (ECA) Thermal Insulation Flooring Block is a composite material made from ceramic tile, cement, Ash and Expanded Clay Aggregates (ECA).

TEST RESULTS

Hot plate Temperature °C	Top surface Temperature °C	Bottom surface Temperature °C	Temperature drop °C
71.09	63.39	44.59	18.8