



# AL MANARATAIN

AL MANARATAIN COMPANY AND ALI AL SHAAB GROUP W.L.L.

## SANDWICH INSULATION BLOCK



### INSULATION SANDWICH BLOCK :

Our insulated blocks are manufactured with expanded polystyrene inside. This gives excellent thermal insulation ( Low U-Value ). The U-Value of building component ( Walls, Roofs, Windows ) is a measurement for heat transfer which passes between room and exterior and which must be replaced by cool air produced by air conditioners. There for a low U-Value is key to saving in A/C cost.

### 8" SANDWICH BLOCK SPECIFICATION :

- ❖ Dimensions 400 × 200 × 200 mm
- ❖ Dimensional Tolerance Category D1
- ❖ Normalized Compressive Strength  $\geq 7.5 \text{ N/mm}^2$
- ❖ Weight 19 Kg
- ❖ Gross Dry Density 1200 Kg/m<sup>3</sup>
- ❖ R-Value 1.5987 ( m<sup>2</sup> °C / W)
- ❖ U-Value (15mm Plaster) 0.55 ( W / m<sup>2</sup> °C)
- ❖ Standards BS EN 771 - BS EN 772



هيئة الكهرباء والماء  
Electricity & Water Authority  
Kingdom of Bahrain

إدارة ترشيد الكهرباء والماء  
Electricity & Water Conservation Directorate

**شهادة تسجيل منتج عزل حراري**  
**Registration Certificate of Thermal Insulation Product**  
(Ministerial Order No. 149/2018)

<b>Certificate No:</b>	TIP19020	رقم الشهادة:
<b>Registration Date:</b>	16/10/2019	تاريخ الإصدار:
<b>Issued to:</b>	Al Manaratain Company and Ali Alsheab Gro Kingdom of Bahrain	أصدرت إلى:
<b>Product Name:</b>	8" Sandwich Block (Al Manaratain)	اسم المنتج:
<b>Application For:</b>	Wall	الاستخدام في:
<b>Manufacturer Name:</b>	Al Manaratain Company and Ali Alsheab Gro Kingdom of Bahrain	اسم المصنع:
<b>Valid Until:</b>	31/10/2020	تاريخ الصلاحية:

تفاصيل المنتج / Product Details	
Description	Sandwich Block (400X200X200mm) concrete masonry insulation block with two cavities and 75mm thick expanded polystyrene sheet between the two layers of concrete.
Density	Concrete: 2290kg/m <sup>3</sup> / Bahrain Expanded polystyrene: 30.69kg/m <sup>3</sup>
Min. Thickness	Sandwich Block: 200mm / Bahrain Expanded polystyrene: 75mm
Thermal Conductivity	0.1251W/mK
U-value	0.6255 W/m <sup>2</sup> °C

**Conditions:**

- The above thermal insulation product is to be used as described above, provided the overall U-value for the wall does not exceed 0.57 W/m<sup>2</sup> °C.
- The owner should take the necessary precautions to ensure proper storage and installation of the product to protect it from moisture and direct sunlight.
- The owner of this product is responsible of ensuring that the product is carried out by him or an approved applicator, for supplying all the accessories associated with it, and for any consequences that may result from the use of this product.
- All documents published by the owner for the above product should not contradict with the thermal conductivity value stated in this certificate.
- This approval is granted for thermal insulation only. Any additional approvals / permissions required should be sought from the concerned authorities.
- The TIU should not be held responsible for any consequences that may result from the use of this product.
- The TIU reserves the right in future to request additional documents and to withdraw its approval of the above if any variations are noticed.



**Electricity Conservation Section**

Observe natural resources and environment by saving electricity & water  
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