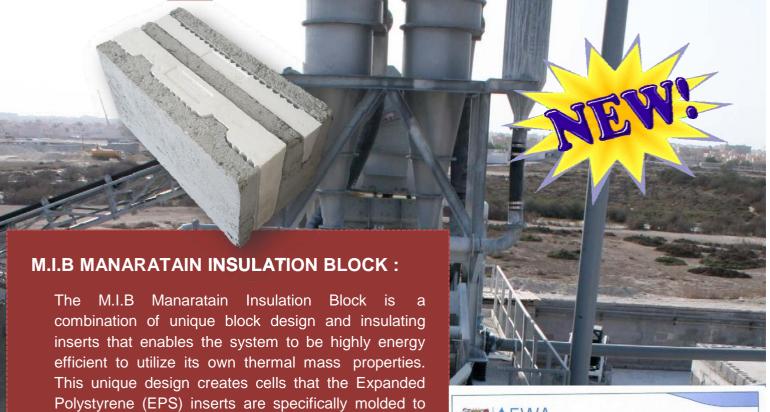


M.I.B INSULATION BLOCK (IMSI)



M.I.B 8" BLOCK SPECIFICATION:

Dimensions

Dimensional Tolerance

Compressive Strength

Weight

fill.

Gross Dry Density

K-Value

Standards

 $400 \times 200 \times 200 \text{ mm}$

Category D1

7 N/mm2 & 12.5 N/mm2

22.5 Kg

1400 Kg/m³

0.2276 (W/m.K)

BS EN 771 - BS EN 772

M.I.B ADVANTAGES:

- ✓ Load bearing.
- ✓ Excellent heat insulation.
- ✓ Easy electrical pipe installation.
- ✓ Easy reinforcement installation.
- ✓ Easy to fix.
- ✓ Eco friendly.



إدارة تــرشيـــــد الـكـهـــربـــاء والم Electricity & Water Conservation Directorate

رقم الشهادة:

أصدرت إلى:

امنم المنتج : الاستخدام في: اسم المصنع:

تاريخ الإصدار:

شهادة تسجيل منتج عزل حراري Registration Certificate of Thermal Insulation Product

Certificate No:

Registration Date: Issued to:

Product Name: Application For: Manufacturer Name:

Valid Until-

TIP 22059 29/11/2022 Al Manartain Co. & Ali AlSheab Gro. Kingdom of Bahrain 8" IMSI Al Manartain Block

Wall Wall
Al Manartain Co. & Ali AlSheab Gro.
Kingdom of Bahrain
30/11/2024

تاريخ الصلاحية:

Pi	roduct Details / تفاصيل المنتج
Description	400x200x200mm - Concrete Masonry Insulation Block with two layers of Expanded Polystyrene sheet between the three layers of concrete.
Density (kg/m³)	Concrete: 2320 / Expanded polystyrene: 28.86
Min. Thickness (mm)	200
Thermal Conductivity (k) (W/m°C)	0.2276
Thermal Transmittance / Conductance (C) (W/m² C)	1.138 Non-Standalone System**

Conditions:



Electricity Conservation Section



إدارة تــرشيــــد الـكـهــربــاء والــاء Electricity & Water Conservation Directorate

شهادة تسجيل منتج عزل حراري

Registration Certificate of Thermal Insulation Product

(Ministerial Order No. 149/2018)

Certificate No:

Product Name:

Application For:

Manufacturer Name:

Registration Date:

Issued to:

TIP 22059

29/11/2022

Al Manartain Co. & Ali AlSheab Gro.

Kingdom of Bahrain

8" IMSI Al Manartain Block

Wall

Al Manartain Co. & Ali AlSheab Gro.

Kingdom of Bahrain

Valid Until:

30/11/2024

تاريخ الصلاحية:

رقم الشهادة:

أصدرت إلى:

اسم المنتج :

الاستخدام في:

اسم المصنع:

تاريخ الإصدار:

a data da	Colored Colore
P	roduct Details / تفاصيل المنتج
Description	400x200x200mm - Concrete Masonry Insulation Block with two layers of Expanded Polystyrene sheet between the three layers of concrete.
Density (kg/m³)	Concrete: 2320 / Expanded polystyrene: 28.86
Min. Thickness (mm)	200
Thermal Conductivity (k) (W/m°C)	0.2276
Thermal Transmittance / Conductance (C) (W/m² °C)	1.138 Non-Standalone System**

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/m² °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.
- The owner of this product is responsible of ensuring that the expanded polystyrene sheets are properly fit and tightly installed between the layers of concrete during manufacturing phase and subsequent transportation, storage and installation of the 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.
- ** Product above shall be supported by other certified insulation materials so; that it can achieve the required U-Value.



Electricity Conservation Section

Conserve natural resources and environment by saving electricity & water

ترشيد الكهرباء والماء يساهم في إستدامة الموارد الطبيعية ويحافظ على البيئة

مانف: 17991501 (+973) Tel.:

قاكس: Fax: (+973) 17212559

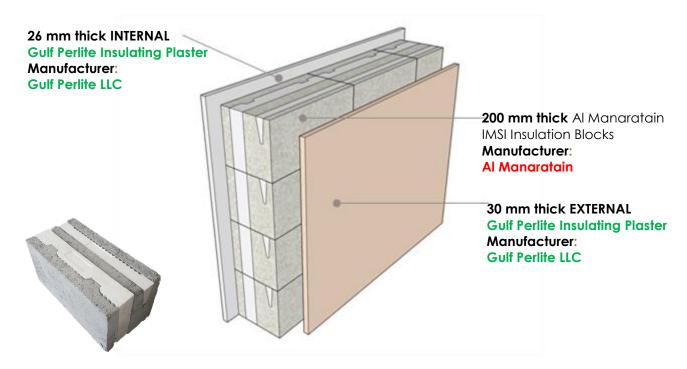
P.O.Box: 2: 4.00

www.ewa.bh





EWA-APPROVED, COST-EFFECTIVE AL MANARATAIN INTEGRATED MASONRY SYSTEM INTERNATIONAL (IMSI) BLOCKWORK with GULF PERLITE INSULATING PLASTERS



Thermal Transmittance (U-Value) Calculation:

No.	Description of materials	Thickness (d)	λ	R
		m	W/m.K	m².K/W
1	R _i (Interior surface)	-	-	0.121
2	Gulf Perlite Insulating Plaster Internal	0.026	0.0800	0.325
3	8" Al Manaratain IMSI Blockwork with	0.200	0.2276	0.879
	EPS Insertions			
4	Gulf Perlite Insulating Plaster External	0.030	0.0800	0.375
5	R _o (Outside surface)	-	-	0.059
	1.759			

U-Value = $0.569 \text{ W/m}^2 \,^{\circ}\text{K}$











Kingdom of Bahrain	مملكة البحرين
Electricity & Water Authority	هيئة الكهرباء والماء
Electricity & Water Conservation Directorate	إدارة ترشيد الكهرباء والماء

• Thermal Transmittance (U-Value) for external Walls with Blocks

Sr. No.	Description of materials used	Density kg/m ³	Thickness (I)	<u>m.k</u>	R <u>m².k</u>	Notes
			m	W	W	
1-	Ext.Surface Resistance				0.0590	
2-	External Perlite Plaster	408	0.030	12.500	0.375	K=0.08
3-	IMSI Concrete Block - MIB	1200	0.200	4.394	0.879	K=0.2276
4-	Internal Perlite Plaster	408	0.026	12.500	0.325	K=0.08
5-	Int.Surface Resistance				0.1210	
6-						
7-						
8-						
9-						
10-						
11-						
12-						
13-						
II.	Total thermal resistance for	(R _T):	1.759			

U-Value = 0.569 W/m.² °C

Client's Name & Signature	In charge Engineer Name & Signature	Engineering Office Stamp & Signature	
Electricity & Water Auth	ority Approval	Date of Approval	

Ministry of Works, Municipalities Affairs and Urban Planning





Ref.: MED/C&RS/M-312/2022

Date: 25th May 2022

To : Directors,

SEPPD, SEOMD, RPDD, RPMD, BMD, CPD, SPD

From : Director,

Materials Engineering Directorate

Material Compliance Report (MCR)

We wish to advise that *Al Manaratain Company & Ali Alsheab Group WLL (Bahrain)* had requested us to assess their *Concrete Masonry Blocks strength grade 7.5MPa* manufactured by *Al Manaratain Company & Ali Alsheab Group WLL (BAHRAIN)* for consideration in MoW projects.

Following MED standard procedure for assessing materials/products, please find attached for your information Material Compliance Report (MCR 4700/2022) for the aforementioned products.

This addition/renewal will be uploaded on our Pre-Qualification List for Materials which is available and updated monthly in our Ministry's Portal.

For any further clarification, please do not hesitate to contact the undersigned or the Chief of Consultancy and Research Section at 1781 2450.

Regards,

Amal Abdulnabi Khalaf

cc: Section Chief CRS / MAS File 5584 - CEMCG



Ministry of Works, Municipalities Affairs and Urban Planning



Consultancy & Research Section

Material Compliance Report (MCR) 4700/2022

(For Ministry of Works projects)

Material Detail:	Concrete Masonry Blocks Strength Grade 7.5MPa (50% RAK Aggregate + 50% Recycled Concrete Aggregate - Grade 1) • For Models as per Attachment 1
Manufacturer:	Al Manaratain Company & Ali Alsheab Group W.L.L., Bahrain
Applicant:	Al Manaratain Company & Ali Alsheab Group W.L.L. P. O. Box 926 Al Burhama, Manama, Kingdom of Bahrain

Following MED standard procedures for assessment and technical evaluations of the above Material, as to compliance with the Ministry of Works' specifications and requirements, we advise as per the following details:

i. Compliance with Relevant Standards & Specifications

Acceptable

ii. Adequacy for use in Ministry of Works projects

✓ Suitable for use with conditions. Please refer to comments below.

iii. Comments

- This approval does not cover the Insulation/Thermal, Acoustic and Fire Resistance Properties.
- This approval does not cover the insulation material (inserts) for Insulated Blocks.
- This product is permitted only to non-load bearing walls only and shall be utilized only on walls without steel embedment or reinforcement.
- The product when tested should adhere to **EN 771-3:2011** and shall always conform to the Standard Specifications for Construction Works 2019 of the MOW projects.
- This compliance report does in no way relieve the supplier or contractor of their obligation with respect to obtaining the necessary approval of the concerned Project Engineer for a specific project.
- The material will be subject to factory inspection and periodic quality control assessment by the Materials Engineering Directorate personnel.

Note:

This Report is valid for maximum of 1 year(s) from the date of this Report unless otherwise stated or there is a change / revision in the material technical specifications, manufacturing process or relevant Standards & Specifications requirements.

Signed & stamped by,

Date: 25th May 2022

MAS File 5584 / CEMCG

Director, Materials Engineering Directorate



KINGDOM OF BAHRAIN

Ministry of Works, Municipalities Affairs and Urban Planning



Concrete Masonry Blocks Strength Grade 7.5MPa, Manufactured & Supplied by Al Manaratain Company & Ali Alsheab Group W.L.L.

MAS 5584 - MCR 4700/2022 Attachment 1- List of Approved Models

NO.	PRODUCT NAME / DESCRIPTION				
	Hollow Blocks Sizes:				
1	• (100/150/200/250/300) mmx200mmx400mm				
	• (90/140/190/290) mmx190mmx390mm				
2	Half Blocks Sizes:				
	 200mmx200mmx200mm & 190mmx190mmx190mm 				
3	Solid Blocks Sizes:				
3	• 200mmx200mmx400mm				
	Insulation Blocks Sizes:				
4	 Sandwich Blocks: (200/300) mmx200mmx400mm 				
4	 Slotted Blocks: (200/300) mmx200mmx400mm 				
	MIB Blocks: 200mmx200mmx400mm				
	Nothing Follows				

Ministry of Wor Municipalities Affa and Urban Planni



Director Materials Engineering Directorate





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

HO: SEHLA, P.O. BOX 926, MANAMA, KINGDOM OF BAHRAIN

This is a multi-site certificate, additional site(s) are listed on the next page(s) Bureau Veritas Certification Holding SAS – UK Branch certifies that the Management System of the above organisation has been audited and found to be in accordance with the requirements of the management system standards detailed below

ISO 9001:2015

Scope of certification

MANUFACTURE AND SUPPLY OF CONCRETE HOLLOW BLOCKS, CONCRETE INSULATION BLOCKS, INTERLOCK PAVING, HYDRAULIC PRESS PRODUCTS (KERB STONE, EDGES, PAVING SLABS), RECONSTITUTED STONE, READY MIX CONCRETE, WASHED SAND AND CRUSHER PRODUCTS. DESIGN, MANUFACTURE, SUPPLY AND INSTALLATION OF PRECAST CONCRETE

Original cycle start date:

19-AUGUST-2014

Expiry date of previous cycle:

18-AUGUST-2020

Recertification Audit date:

13-JULY-2020

Recertification cycle start date:

09-SEPTEMBER-2020

Subject to the continued satisfactory operation of the organization's Management System, this certificate expires on: **18-AUGUST-2023**

Certificate No.

MER20.712/UQ

Version 01

Revision date: 09-SEPTEMBER-2020

2 Janawas.



Certification body address: 5th Floor, 66 Prescot Street, London E1 8HG, United Kingdom Local office: Bureau Veritas Bahrain Flat No. 11, Building No. 574, Road 1111, Tubli 711, Kingdom of Bahrain.

8000

Further clarifications regarding the scope of this certificate and the applicability of the management system requirements may be obtained by consulting the organisation. To check this certificate validity please call: +973 17877574