



Al Madina Cement Products  
المدينة للمنتجات الأسمنتية



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A GREEN FUTURE



# INSUMORTAR

## THERMAL INSULATION LIGHT WEIGHT INSU-MORTAR

Pre-mixed thermal and sound insulation lightweight mortar to connect the masonry blocks, made of pretreated expanded polystyrene beads, selected additives, geopolymers and Portland cement. Used to eliminate thermal bridges and as a binding mortar.

## PACKAGE AND STORAGE

- Dry-mix Bags of 40 kg. Packing tolerance 5%
- Shelf lifetime is up to 12 months depending on the storage conditions such as Fresh and dry place, protected from rain and direct sun light...etc

## FIELDS OF APPLICATIONS

- Binding Mortar to connect masonry blocks

## MAIN TECHNICAL CHARACTERISITCS

ID	INSUMORTAR
Dry Density (kg/m <sup>3</sup> )	1000
Water content (L/40kg bag)	7 - 9
Compressive strength (mpa)	Up to 5
Thermal conductivity $\lambda$ (w/m.k)	0.091
Moisture resistance	Rotproof
Fire reactivity	Non -Combustible
Density Tolerance	± 10%



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## MIXING AND APPLICATIONS

- Add No of bags suitable to your mixer.
- Add 7 - 9 liters of clean water/bag and mix for 4-6 minutes using high speed mortar-concrete mixers.
- Remove previously dust, oil, grease, and fragments of residue of any kind from the applied surface.
- Wet sufficiently the surface previous INSUMORTAR application without leaving puddles.
- Consumption 24.5 kg/m<sup>2</sup> or 1.8 kg/block.

## IMPORTANT NOTES

- Mix until the content be total homogenous.
- Mix the whole bag at once. Do not separate the bag.
- Avoid application under the rain or with temperature below +5 C with frost risk.
- Use only clean water for mixing.
- Due to the thixotropic properties of insumortar, add a small amount of water to adjust the viscosity when the mixture is standing for longtime.

## ADVANTAGES

- High & Stable Thermal insulation (U-Value 0.42 w/m<sup>2</sup>.k for width of 20cm).
- Eliminates Thermal bridges between Masonry blocks.
- Lightweight - Reducing deadloads.
- Reduction of Electricity & Energy Consumption.
- Reduction of CO<sub>2</sub> Emissions.
- Sound Insulation.
- Fire retardant & Self-Extinguishing.
- Excellent adhesion and cohesion.
- High water Vapor permeability rate.
- High production rate per day.
- Eco and environmentally friendly.
- Unaffected by moisture and sunlight.
- Protects the wall from condensation and stored moisture.
- Easy for lifting and handling.
- Does not allow the growth of bacteria or algae or mold.
- Warranty for thermal properties up to 20 Years.

The technical information provided in this data sheet is based on laboratory testing and is intended as a general guideline. Actual performance may vary due to the packing tolerance, site conditions, water content, mixing equipment, weather factors, and installation methods. This information is not legally binding, and Almadina Cement Products assumes no liability for variations in performance resulting from external conditions or improper application.

It is the responsibility of the user to verify the product's suitability for the intended application and to follow best industry practices and installation guidelines.

Almadina Cement Products reserves the right to modify this data sheet at its sole discretion without prior notice. This version supersedes all previously published data sheets, which are no longer valid.



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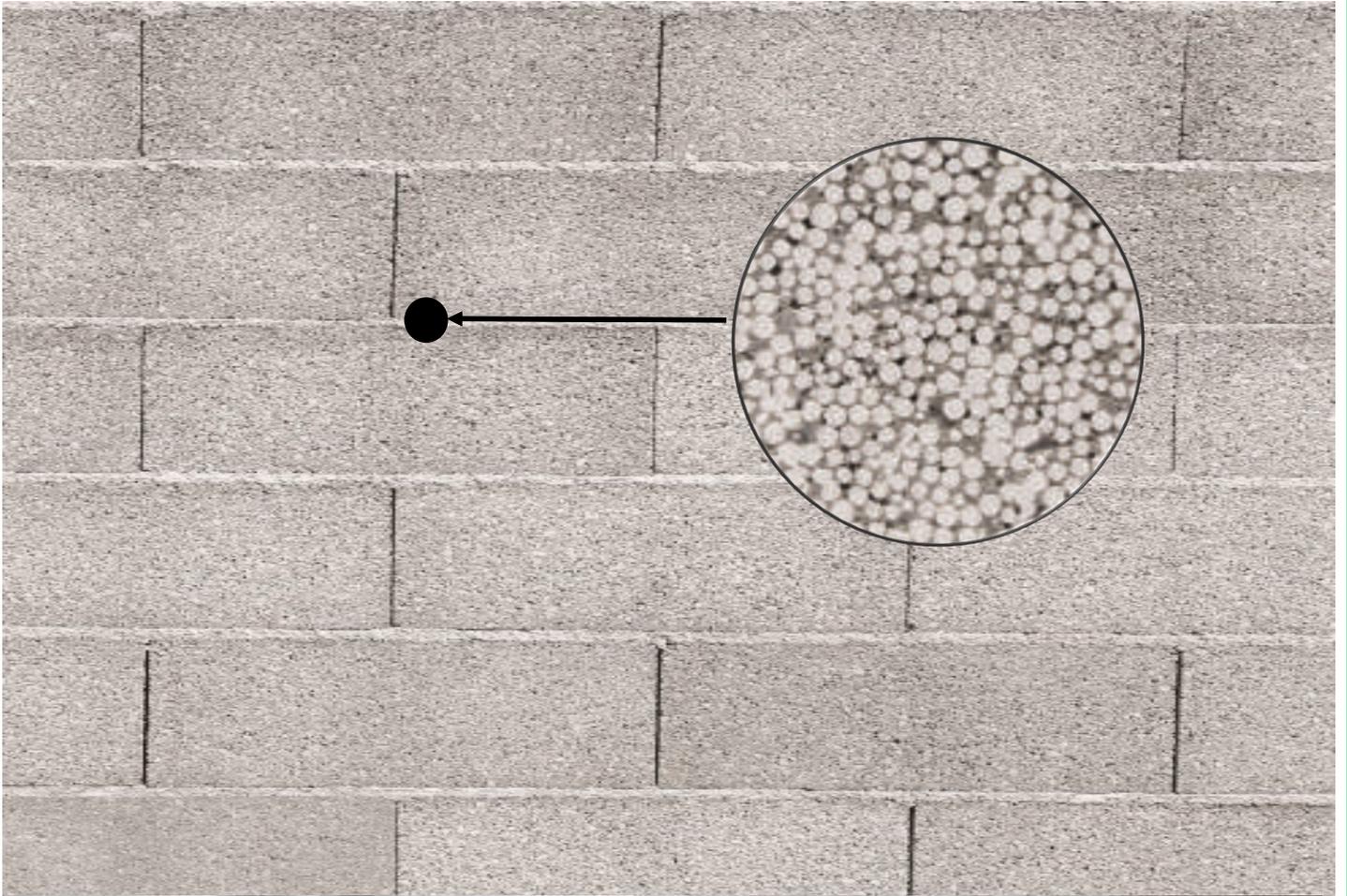
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### TEST CERTIFICATE - THERMAL RESISTIVITY

Report No.	LMCIV-2409611	Date Reported	14 Nov 2024
Customer Ref.	-	Date Received	13 Nov 2024

#### 1. Information Provided by the Customer

Customer for LAL	Al Madina Cement Products
Project	Insu Product Based On Closed Cell Vergin Eps Cement Mortar
Project Customer	General
Main Contractor	General
Consultant	General
Sample Description	INSU Mortar Thermal Insulation Light Weight Binding Mortar for Masonary Applications

#### 2. Sample Details

Sampled By	Customer	Sampling Date & time	Not Given
Sampling Method	Not Given	Source of sample	MCP
Sample Brought By	Customer	Sampling Certificate	Not Given
Sampling Location	Samail	Sampling Certificate No.	Not Given

#### 3. Information Provided by Laboratory

Date Tested	13 Nov 2024	Test Method	ASTM D 5334:2014
Sample No.	CIV-09617	Method Variation	Nil
Test Location	LAL MCT	Remarks	Nil

#### 4. Test Result

Equipment Name	Test Condition	Thermal Conductivity w/m °C	Temp. °C	Bulk Density Kg/m <sup>3</sup>
TSL-100	As Received	0.091	26.8	1000

----- End of Report -----

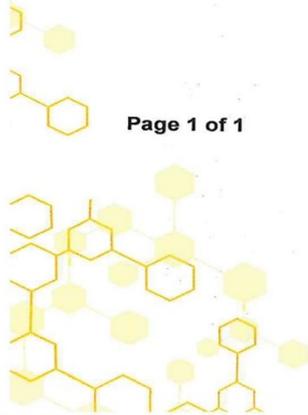


*Seetharam V.S.*

For and on behalf of Lonestar Alpha Laboratories  
Muscat

**Seetharam V.S**  
Sr. Lab. Technician

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### TEST CERTIFICATE - COMPRESSIVE STRENGTH OF MORTAR

Report No.	LMCIV-2409754/1	Date Reported	19 Nov 2024
Customer Ref.	-	Date Received	16 Nov 2024

#### 1. Information Provided by the Customer

Customer for LAL	AI Madina Cement Products		
Project	Insu Product Based On Closed Cell Vergin Eps Cement Mortar		
Project Customer	General		
Main Contractor	General		
Consultant	General		
Sample Description	INSU Mortar Thermal Insulation Light Weight Binding Mortar for Masonary Applications		

Sampled By	Customer	Date of Cast	21 Oct 2024
Sampled Brought By	Customer	Place of Sampling	Samail
Source of Sample	AI Madina Cement Products	Mix Grade	Not Given
Structural Reference	Not Given		

#### 2. Information Provided by Laboratory

Date of Test	18 Nov 2024	Condition as Received	200x200x50mm tiles
Test Method	ASTM C109 / C109M-21	Size of The Sample	(50x50x50) mm
Moisture Condition	Saturated	Method Variation	Nil
Test Location	LAL MCT	Remarks	Nil

#### 3. Test Results

LAL Ref No	CIV-09760 /1A	CIV-09760 /1B	CIV-09760 /1C
Customer Ref. No.	1	2	3
Age @ Test (Days)	28		
Dimensions* (mm)	51.1x48.2x50.5	50.1x49.5x50.7	50.1x50.1x50.8
Mass (kg)	0.132	0.134	0.137
Density (kg/m <sup>3</sup> )	1060	1070	1070
Max. Load @ Failure (kN)	12.2	11.9	13.2
Compressive Strength (N/mm <sup>2</sup> )	4.9	4.8	5.3
Average Compressive Strength (N/mm <sup>2</sup> )	5.0		

\*Test sample is cut into small pieces for the testing purpose.

----- End of Report -----

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