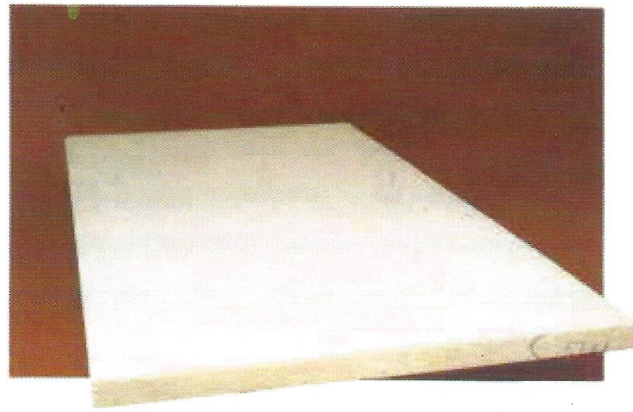


# INSOFOAM

## Expanded Polystyrene Sheets For Cavity Wall Insulation

MADE IN OMAN



## THE PRODUCT

**INSOFOAM** wall insulation is a styrene base plastic material having a rigid white foam-like texture comprising not less than 4 to 6 million closed cells per litre. It offers a variety of unique properties never combined in any material.

**INSOFOAM** as thermal insulation and impact noise insulation is the most efficient material used in the building industry, for insulating walls, portable cabins, cold stores, Duct, partitions, expansion joints, shuttering and decorations, Floor.

Its honeycomb texture of closed cells makes it a homogeneous material with the highest thermal insulating power. It is rigid but extremely light weight: 1 to 1.5 lb/ft<sup>3</sup>. (The lightest of the plastic materials).

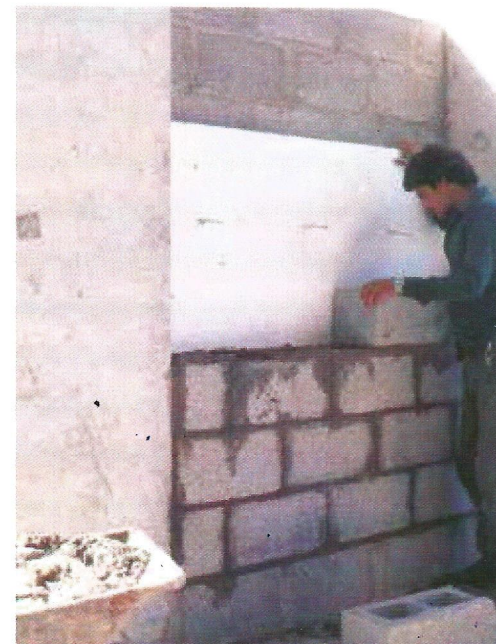
It can however be made heavier depending on the mechanical resistance required. It is a stable material, does not age and has low water vapour transmission. It is unaffected by acids, alkali, alcohol and sea water. It does not rot and is not attacked by rodents. It does not however withstand temperatures exceeding 90 °C.

## DESIGN CONSIDERATIONS

The most cost effective and simple way to save energy and improve thermal characteristics of a new cavity wall is to build in insulation as the wall is constructed.

The use of **INSOFOAM** wall insulation sheets leaves the architect with complete freedom of choice of material for the inner leaf including brick, dense concrete block or hollow block.

Increased thermal capacity in the walls, backed by efficient **INSOFOAM** in the cavity, means the walls can store energy whilst air-conditioning installation is operational. This energy is returned to the building or room, when the air-conditioner does not operate thereby maintaining a more even temperature and greater level of comfort.



## Characteristic properties of foamed materials made from INSOFOAM

Property	Unit	Test method	Insofoam foamed materials					
			LD	SD	HD	EHD	UHD	SHD
Grade								
Foamed density	kg/m <sup>3</sup>	ASTMD - 1622-03	10-12	12-15	18-20	24-25	28-30	32-35
Maximum thermal conductivity at 10°C	W/mK	ASTMC - 578:2010	0.040	0.038	0.035	0.033	0.032	0.030
Compressive strength or compressive stress at 10% strain minimum	kPa	ASTMD - 1621-04	50	70	110	150	190	235
Minimum cross breaking strength	kPa	BS 4370 Part 1 Method 4	115	140	170	205	275	350
Dimensional stability at 80°C Maximum % linear change	%	BS 3837 Appendix E	1.0	1.0	1.0	1.0	1.0	1.0
Maximum water vapour permeability at 38°C	ng/pasm	BS 383 Appendix F	8	6.9	5.9	4.2	4.2	3.9
Burning characteristic extent burnt	mm	BS 4735				Type N ≥ 125 Type A < 125	<b>FIRE RETARDENT GRADE</b>	
Size	mm			2530 x 1280				
Thickness	mm			10 — 1000				

### FLOTATION

Due to its negligible weight, INSOFOAM has great buoyancy and with its rigidity and impermeability it has become widely used in the floatation field under various forms and shapes.

### WORKABILITY

Cutting and shaping of INSOFOAM is extremely easy. With the import of the latest state-of-the-art computerised cutting machine, it is possible to achieve intricate contours of various shapes and sizes.

### BONDING

INSOFOAM will adhere to itself or to a wide variety of materials through the use of adhesives containing other than petroleum-derived solvents.

### PAINTING

INSOFOAM can easily be painted but only with latex, water or epoxy paints and not with any oil based paint. It can also be supplied originally coloured on special demand.



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