

ALAMDAR POLYISOCYANURATE (PIR) BOARDS FOR ROOF AND WALL

Alamdar Vapotherm Co. started production of Rigid **Polyisocyanurate** Thermal Insulation Panel Boards in 1976 at its factory oriented in Riyadh, with annual capacity of **1,400,000 M²** of panel boards for one shift.

Polyisocyanurate having the lowest Thermal Conductivity of all the known building Thermal Insulation Materials, is the most cost effective in climatic conditions of Saudi Arabia.

Alamdar Vapotherm Panel Boards are available with different facings: like

1. Polyethylene coated Glass Fiber tissue.	2. Asphalt Felt.
3. Kraft Paper - Plain or Polyethylene coated.	4. Reinforce Aluminum Foil with kraft paper.
5. Without Facing	

The Panel Boards are manufactured in any densities in the range of 32 KG / M³, of which the following three are the most common:

- a) 32 - 35 kg / M³ density usually for Wall, Roof insulation.
- c) 45 - 50 kg / M³ density usually for Floor insulation.
- d) 55 - 60 kg / M³ density usually for Pipe Stand without facing.

The wide array of choices in facings and densities, make **Alamdar Vapotherm Polyisocyanurate** Panel Boards, the most versatile in application in various situations prompted by design considerations - such as - both Conventional and Inverted Roofing Systems, External and Internal Wall Insulation, etc.

The Panel Boards are supplied in thicknesses ranging from 20 mm to 120 mm, width being 610 mm and in lengths from 900 mm to 4000 mm. (Tolerances \pm 3 mm)

For the installing contractor Alamdar Vapotherm also supplies Cannot Strips for use at the joining of horizontal roof with vertical parapets or upstands to provide slope for the waterproofing membrane.

FIXING:	TEST SATISFY:
(i) Hot Bitumen	Comply ASTM C- 1289 & ASTM C 591
(ii) Mechanical: By Self Trapping Screw.	HH - I - 530 A
	HH - I - 1972
	DIN, BS, SASO

This Data may be changed improved or modified by ALAMDAR VAPOTHERM, in accordance with the Client's requirements, availability of raw material, without advance notice.

TYPICAL PROPERTIES: COMPLY WITH ASTM C-1289 & ASTM C-591

FOR ALL THECKNESSES AND TYPES OF FACING

DIMENSIONS	TEST METHOD ASTM	BOARDS FOR WALL, ROOF & FLOOR AND (BLOCK FOAM)		
THECKNESS		20 MM - UP TO 120 MM		
Density	D-1622	32 - 35 Kg / M ³	45 - 50 Kg / M ³	55 - 60 Kg / M ³
Compressive Strength	D- 1621	1.8 – 2.1 Kg / M ² 180 – 210 KPA	2.8 - 3.10 Kg / CM ² 280 – 310 KPA	3.1 – 4.0 Kg / CM ² 310 – 400 KPA
Flexural Strength	C 203	275 -285 KPA	290 - 300 KPA	300 - 400 KPA
K – Value	C- 177 / C- 518	0.022 – 0.024 W / M K ^o		
		0.022 W / M K ^o AT 24°C	0.022 W / M K ^o AT 24°C	0.022 W / M K ^o AT 24°C
Water Absorption	D -2842 / C209	≤ 1.0% by volume	≤ 1.0% by volume	≤ 1.0% by volume
Rate of Burning	E -84 D -1692 Din 4102	Within Specified Limit Self-Extinguishing	Within Specified Limit Self-Extinguishing	Within Specified Limit Self-Extinguishing
Closed Cell Content	D 2856	≥ 95%	≥ 95%	≥ 95%
Dimensional Stability	D 2126	@ -25°C: < 0.1% Volume Change @ +100°C: < 0.5% Volume Change	@ -25°C: < 0.1% Volume Change @ +100°C: < 0.5% Volume Change	@ -25°C: < 0.1% Volume Change @ +100°C: < 0.5% Volume Change
Water Permeability	C- 355 / E- 96	0.5 - 1.5 Perm Inch	0.5 - 1.5 Perm Inch	0.5 - 1.5 Perm Inch
Working Temperature		-200°C to 150°C (Wider Range)		
	For Long-Term	140°C	140°C	140°C
	For Short-Term	220°C	220°C	220°C
VOC Emission	Internal Testing	Pass	Pass	Pass
BIOLOGICAL CHEMICAL RESISTANCE	<i>Alamdar Boards are Unaffected by moulds Fungus and Vermin, it is resistance to most of Oils, Greases, Solvents, Dilute and Alkaline.</i>			

ARAMCO VENDOR CODE 10011977

PIR offers **superior fire resistance, thermal stability, and moisture resistance**. For applications requiring high safety and longevity (like industrial or fire-prone environments), **PIR** is the better choice.