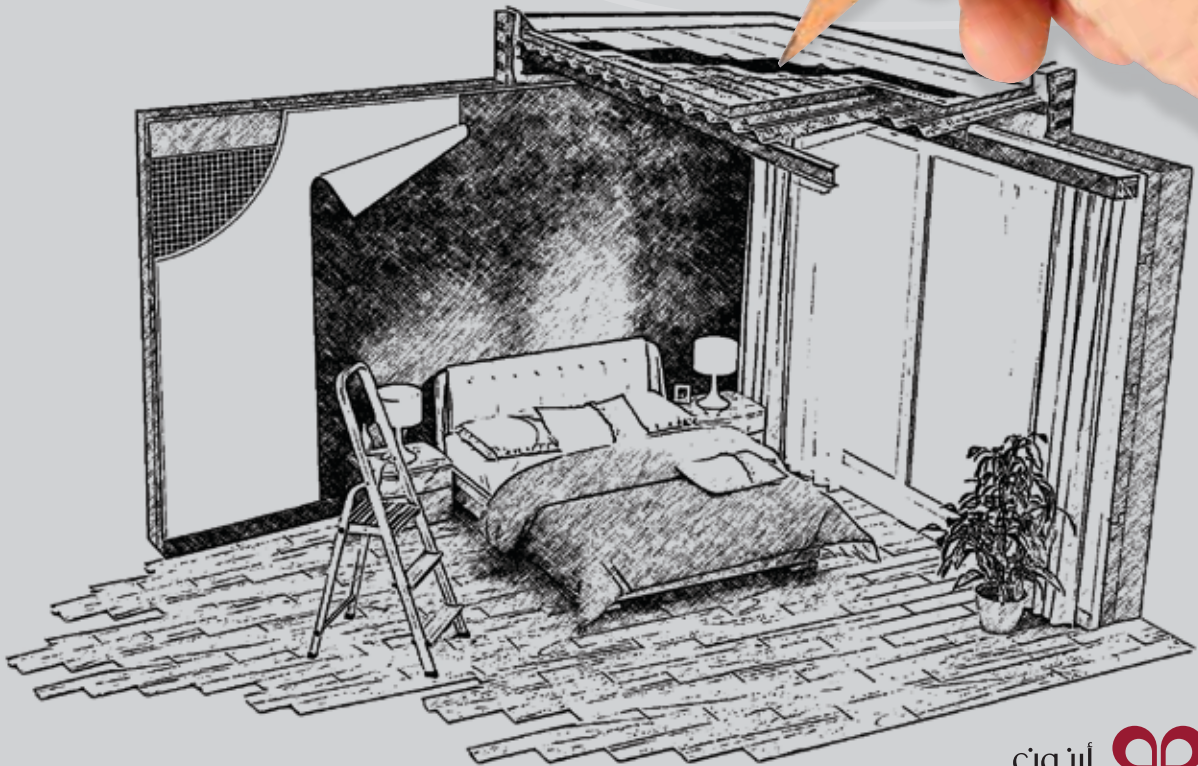


**PE**  
FOAM

## POLYETHYLENE - PE FOAM



**CATALOGUE**  
at your disposal

أرنون  
**ARNON**  
Arnon Plastic Industries Co. Ltd  
شركة أرنون للصناعات البلاستيكية المحدودة



## شركة أرنون للصناعات البلاستيكية

### ARNON PLASTIC INDUSTRIES CO., LTD.

Established in 1999 as an affiliate of Al Fozan Group of Companies, **ARNON** Plastic Ind. Co. Ltd is one of the leading industrial groups in Saudi Arabia.

**Manufacturing its products in 6 modern facilities in Dammam, Riyadh and Jeddah. The company specializes in producing:**

- Polyethylene Foam (PE foam) rolls & sheets to serve the industrial, construction and building material sectors.
- Polystyrene foam (PS foam) food packaging solutions to serve the restaurant, bakery, supermarket and poultry sectors
- Polyethylene Terephthalate (PET), Polypropylene (PP) and High Impact Polystyrene (HIPS) to serve the Dairy/Food Manufacturing Industries, restaurants, bakeries, supermarkets and poultry sectors
- Extruded Polystyrene (XPS foam) ( [healban](#) ) for heat insulation in concrete buildings to serve the building material sector with heat insulation boards.

**ARNON** Plastic Industries is renowned as a leader in its business through its relentless quest to exceed its customers' expectations in quality, service, innovation & products.



## DEEP DIVING IN FOAM BUSINESS

### POLYETHYLENE (PE) FOAM PRODUCTS

Polyethylene (PE) Foam is produced from polymer assemblage. It has many characteristics that make it distinguished from other competing materials.

- Shock Absorbing
- Water Proofing
- Flexible and Easy Handling
- Easy Laminating
- Easy Punching
- Strong Chemical Resistance

**ARNON** Polyethylene (PE) Foam is produced in sheets and rolls with different thicknesses each of which have different applications.

#### POLYETHYLENE (PE) FOAM PRODUCTS INCLUDE:

1. Insulation products
2. Underlay products



# 1. INSULATION PRODUCTS

ARNON Polyethylene (PE) Foam is produced in sheets and rolls with different thicknesses.



1. Steel Structure Insulation



2. Back up Rods



3. Pipe Insulation



4. Wrapping

- Steel Structure Insulation
- Back up Rods
- Pipe Insulation
- Wrapping



# PE STEEL STRUCTURE INSULATION عازل الإنشاءات المعدنية

## مميزات عازل الإنشاءات المعدنية

### CHARACTERISTICS OF STEEL STRUCTURE INSULATION

- Shock Absorbing
- water Proofing
- Heat Insulating
- Flexible and Easy Handling
- Easy Laminating
- Easy Punching
- Strong Chemical Resistance
- Non-Hazardous
- يمتص الصدمات
- ضد الماء
- عازل للحرارة
- مرن وسهل التسليم
- سهل التغليف
- سهل الثقب
- مقاوم قوي للمواد الكيميائية
- غير خطير / آمن



Thickness	Width	Length
6 mm	1.10	20 m
8 mm	1.10	20 m
15 mm	1.10	20 m

### TECHNICAL SPECIFICATIONS

### المواصفات الفنية

PROPERTIES	UNIT	VALUE					Test Method
Thickness	MM	6.0	8.0	10.0	15.0	20.0	ASTM D - 792
Density	G/CM3	0.04	0.04	0.04	0.04	0.04	ASTM D - 792
Cell size	MM	0.82	0.82	0.82	0.82	0.82	ASTM D - 3576
Thermal conductivity	W/M. °C	0.0406	0.0406	0.0406	0.0406	0.0406	ASTM D - 5930
Thermal Resistant	M2.°C/W	0.0739	0.1970	0.02463	0.3694	0.4926	ASTM D - 167
Tensile Strength	KG/CM2	5.6 3.2	3.6 2.7	3.67 2.72	4.5 2.8	4.8 3.1	ASTM D - 638
Elongation	%	105 95	105 90	108 87	98 80	97 75	ASTM D - 638
Heat Dimensional Stability	%	3+ 3-	1+ 1-	1+ 1-	0.75+ 0.75-	0.51+ 0.51-	ASTM D - 6289
Water Absorption	MG/CM2	0.0267	0.37	0.72	0.97	1.2	ASTM D - 570
Moisture Permeability	G/CM2. 24 HR	0.39	0.52	0.64	1.15	1.6	ASTM D - 750
Tearing Strength	KG/CM	2.0	1.5	2.0	2.5	2.8	ARNON METHOD
The Permanent Compression set (100Kg/cm2)	%	9	18	22	26	19	ARNON METHOD

# PE BACK-UP RODS فواصل التمدد

## CHARACTERISTICS OF BACK-UP RODS ——— مميزات فواصل التمدد

DIMENSION	STANDARD PACKAGE / BAG
6	800 m/Bag (8 pcs x 100 m)
8	800 m/Bag (8 pcs x 100 m)
10	800 m/Bag (8 pcs x 100 m)
12	800 m/Bag (8 pcs x 100 m)
15	360 m/Bag (6 pcs x 60 m)
20	200 m/Bag (4 pcs x 50 m)
25	100 m/Bag (4 pcs x 25 m)
30	100 m/Bag (4 pcs x 25 m)
40	100 m/Bag (4 pcs x 25 m)
50	100 m/Bag (4 pcs x 25 m)
60	100 m/Bag (4 pcs x 25 m)

- Used as a filler for decoration purposes and upholstery applications.
- Used as an expansion joint and filler for concrete floors as well as precast, glass and metal cladding walls.

- تستخدم كحشوة لأغراض الزينة وتنجيد المفروشات.
- تستخدم كفواصل للتمدد في الأرضيات الخرسانية، جدران الخرسانة الجاهزة و جدران كسوة المباني الخارجية المصنوعة من المعادن والزجاج.



## TECHNICAL SPECIFICATION ——— المواصفات الفنية

PROPERTIES	UNIT	VALUE	Test Method
Density	G/CM <sup>3</sup>	0.04	ASTM D - 792
Cell Size	MM	0.82	ASTM D - 3576
Water Absorption	MG/CM <sup>2</sup>	0.08	ASTM D - 570
Moisture Permeability	G/CM <sup>2</sup> .24hr	0.5	ASTM D - 570
Elongation at Break	%	60	ASTM D - 638
Thermal Conductivity	W/M <sup>2</sup> .°C	0.0406	ASTM D - 5930
Permanent Compression Set (100KG <sub>F</sub> CM <sup>2</sup> )	%	1 - 2	ARNON METHOD

\* The recommendation in this bulletin is made without guarantee since the conditions of use are beyond our control.

# PE PIPE INSULATIONS عوازل الأنابيب

## CHARACTERISTICS OF PIPE INSULATION

- Fine and closed cellular structure
- Grey color
- Working temperature between (-80 °C to +90 °C)
- Neutral smell
- Excellent flexibility
- Toxicity in fire, 99% carbon dioxide and water
- Practically, no poisonous gases generate in case of perfect combustion
- Outstanding UV resistance



## مميزات عوازل الأنابيب

DIMENSION	STANDARD PACKAGE / BAG
A.PIPE 1/4.GY	1/4" x 2m x 50pcs
A.PIPE 1/2.GY	1/2" x 2m x 120pcs
A.PIPE 3/4.GY	3/4" x 2m x 100pcs
A.PIPE 1.GY	1" x 2m x 85pcs
A.PIPE 1 1/2.GY	1 1/2" x 2m x 50pcs.
A.PIPE 1 1/4.GY	1 1/4" x 2m x 65pcs
A.PIPE 2.GY	2" x 2m x 35 pcs

- ذات بنية جيدة ومحكمة
- اللون رمادي
- تعمل في درجة حرارة تتراوح بين -٨٠ درجة مئوية + ٩٠ درجة مئوية
- لا رائحة لها
- ذات مرونة ممتازة
- في حالة الحريق الغازات المنبعثة ٩٩% ثاني أكسيد الكربون والماء
- عمليا، لا تولد غازات سامة في حالة الاحتراق المثالي
- مقاومة للأشعة فوق البنفسجية

# PE PROTECTIVE WRAPPING التغليف الواقي



## CHARACTERISTICS OF PROTECTIVE WRAPPING

Arnon protective packaging products are available as rolls or pieces designed to work as a protective cushion, impact absorbent and edge protector during transportation of products, like furniture, ceramic ware, glass ware, electronics, office equipment, aluminum profiles, etc.

## مميزات التغليف الواقي

لفات أو قطع أرنون الواقية مصممة للعمل كوسادة واقية أثناء نقل المنتجات. حيث أنها تمتص الصدمات وتقوهم بحماية المنتجات خلال نقلها من مكان إلى آخر ( الأثاث، و أدوات السيراميك، و الأواني الزجاجية، و الأدوات الإلكترونية، و تجهيزات المكاتب، و منتجات الألمونيوم، و الأبواب، ..... والخ )



U-ROD FOAM



ROUND FOAM



SHEET FOAM



## 2. UNDERLAY PRODUCTS

ARNON Polyethylene (PE) Foam is produced in sheets and rolls with different thicknesses.



1. Parquet Underlay



2. Carpet Underlay



3. Arnon Superlay



Flooring underlay is a cost effective method to add thermal and sound protection to your floor.

- Parquet Underlay
- Carpet Underlay
- Arnon Superlay Underlay



# PE PARQUET UNDERLAY عازل الباركية

EXTENDS LIFE OF WOODEN  
AND LAMINATED FLOORINGS

## CHARACTERISTICS OF PARQUET UNDERLAY ——— مميزات عازل الباركية

- Extends life of wooden and laminated floorings ● يطيل عمر الأرضيات الخشبية
- Doesn't absorb water ● لا يمتص المياه
- Reduces noise transfer in multi layered buildings ● يمتص صدمة حركة الأقدام في المباني المتعددة الطبقات
- Stops heat-cold transfer from and to the wooden floor ● يمنع انتقال الحرارة من وإلى الأرضيات الخشبية
- Non-poisonous and chemical resistant ● غير سام ومقاوم للمواد الكيميائية
- Limits the sound ● يحد من الصوت



## TECHNICAL SPECIFICATION ——— المواصفات الفنية

PROPERTIES	UNIT	VALUE		Test Method
Thickness	MM	2.0	3.0	ASTM D - 792
Density	G/CM3	0.04	0.04	ASTM D - 792
Cell size	MM	0.82	0.82	ASTM D - 3576
Thermal conductivity	W/M. °C	0.0406	0.0406	ASTM D - 5930
Thermal Resistant	M2.°C/W	0.0493	0.0739	ASTM D - 167
Tensile Strength	KG/CM2	5.34 3.2	5.6 3.2	ASTM D - 638
Elongation	%	110 110	105 85	ASTM D - 638
Heat Dimensional Stability	%	4+	3+	ASTM D - 6289
		4-	3-	
Water Absorption	MG/CM2	0.017	0.267	ASTM D - 570
Moisture Permeability	G/CM2. 24 HR	0.24	0.39	ASTM D 750
Tearing Strength	KG/CM	1.95	2.0	ARNON METHOD
The Permanent Compression set (100Kg/cm2)	%	7	9	ARNON METHOD



# PE CARPET UNDERLAY عازل السجاد

PROVIDES COMFORT  
TO THE FEET

## CHARACTERISTICS OF CARPET UNDERLAY ——— مميزات عازل السجاد

- Extends the life of the carpet
  - Doesn't absorb water
  - Provides comfort to the feet
  - Provides a silent step to reduce noise transfer in multi-layered buildings
  - Stops heat-cold transfer from the floor to the carpet
  - Works with all kinds of glue
  - Non-poisonous and chemical resistant
  - Doesn't need wooden grippers at the room's floor angles
  - Doesn't need glue tape under the carpet
  - Price is very competitive
- يطيل عمر السجاد
  - لا يمتص المياه
  - مريح للأقدام
  - يمتص صدمة حركة الأقدام في المباني المتعددة الطبقات
  - يمنع انتقال الحرارة و البرودة من الأرضيات إلى السجاد
  - غير سام ومقاوم للمواد الكيميائية
  - يمكن استخدام جميع أنواع الغراء حتى أرضها
  - لا يحتاج إلى الزوايا الخشبية لتثبيته
  - لا يحتاج إلى الشريط اللاصق بينه وبين السجاد
  - سعره منافس جداً



## TECHNICAL SPECIFICATION ——— المواصفات الفنية

PROPERTIES	Test Method	Test Result
Cellular structure	Very fine and closed	
Thickness	ASTM D - 729	10mm - 15mm
Density	ASTM D - 729	0.04g/cm <sup>3</sup>
Cell size	ASTM D - 3576	0.82mm
Permanent		9% for 100 kgf/cm <sup>2</sup>
Chemical resistant	ASTM D - 453-56T	Excellent
Water absorption	ASTM D - 570	0.37mg/cm <sup>2</sup> .24hr
Moisture permeability	ASTM D - 750	Almost
Poisonous gases in case of perfect combustion		None
Weight		21-23 kg/roll
Wear guarantee		Life time of the carpet

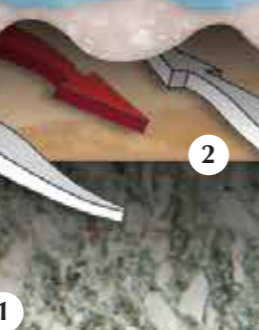


# PE ARNON SUPERLAY لباد ذو فتحات تهوية



- 1 LDPE film
- 2 LDPE foam
- 3 Air channels

- 1 أرضية خرسانية
- 2 بلاط سيراميك/بلاط رخام
- 3 لباد أرنون متعدد المميزات SuperLay
- 4 موكيت
- 5 الحافة



## CHARACTERISTICS OF ARNON SUPERLAY

The footstep pressure allows humid air to get extracted and replaced with fresh air through 70 vented ports/each per each square meters. **This process:**

- Allows your carpet and floor to breath
- Keeps the underfloor dry
- Prevents moisture, mold condensation and bad odors
- Provides an outstanding acoustic insulation
- Provides extra comfort to the feet

All these super characteristics make **ARNON SUPERLAY** the best product in the market

## مميزات لباد أرنون ذو فتحات تهوية

سوف تسمح عملية المشي والضغط على السجاد المدعم بلباد أرنون باستبدال الهواء الرطب من تحته بهواء نقي وذلك من خلال 70 منفذ تهوية في كل متر مربع. **هذه العملية:**

- تسمح للسجاد والأرضيات بالتهوية.
- تحافظ على أرضية جافة.
- تمنع الرطوبة والعفن من التجمع وتمنع انبعاث الروائح الكريهة.
- تمتص صوت حركة الأقدام.
- توفر راحة إضافية للقدمين أثناء المشي.

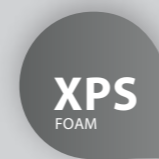
هذه المميزات تجعل **ARNON SUPERLAY** من أفضل المنتجات في السوق

## TECHNICAL SPECIFICATION

## المواصفات الفنية

PROPERTIES	TEST METHOD	TEST RESULT
Composition		Bonded Polyethylene Foam
Cellular structure	Very fine and closed	
Thickness	ASTMD - 729	10 mm
Density	ASTMD - 729	0.03g/cm3
Cell size	ASTMD - 3576	0.82mm
Permanent compression		9% for 100Kgf/cm2
Chemical resistant	ASTMD - 543 - 56T	Excellent
Water absorption	ASTMD - 570	0.37 mg/cm2 .24hr
Moisture permeability Poisonous gases in case	ASTMD - 750	Almost
Of perfect combustion		None
Weight		21-23 Kg/roll
Wear guarantee		Life time of the carpet



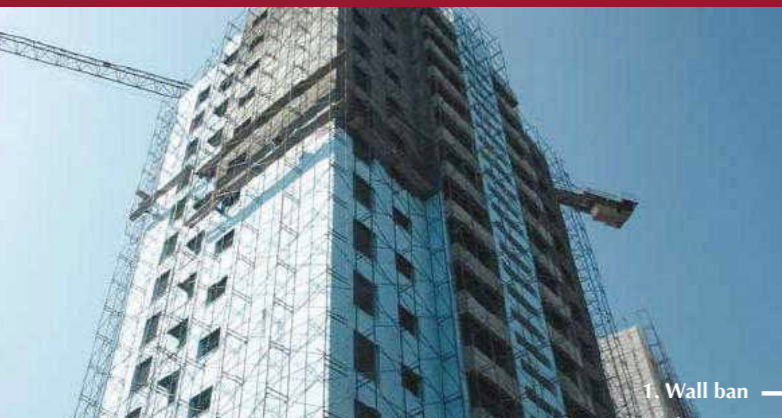


THERMAL INSULATION - EXTRUDED POLYSTYRENE FOAM

heatban  
هيت بان

thermal insulation للعزل الحراري

HEAT BAN INSULATION PRODUCTS



1. Wall ban



2. Roof ban



3. Floor ban



ENERGY SAVING IS A RESPONSIBILITY



منتجات عالية الجودة  
ARNON High Quality Products



## XPS HEAT BAN هيت بان

wallban extruded polystyrene boards will prevent the loss of energy through external walls of buildings.

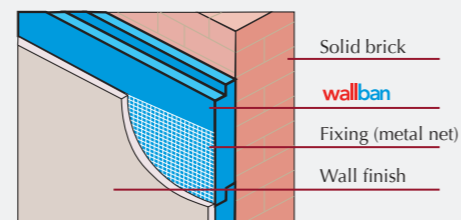
wallban is good for both internal insulation as well as external insulation, which provides support to any finishing works such as plastering, dry lining and rendering.

### CHARACTERISTICS OF WALLBAN

- Density: 30 – 32 kg/m<sup>3</sup>.
- Thickness: 25, 30, 40, 50, 60, 70, 75, 100 mm.
- Board size: 600 x 1250 mm.
- Edges: Rebated edges or straight.

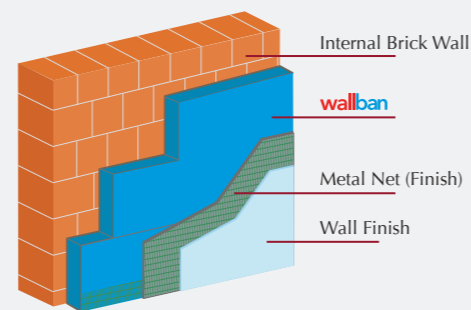
### INTERNAL WALL INSULATION

Internal Wall Insulation type involves applying a 30-50 mm insulation layer on the inside of walls covered with Composite board ( gypsum board + Wallban ) fixed with adhesive and possibly metal fasteners.



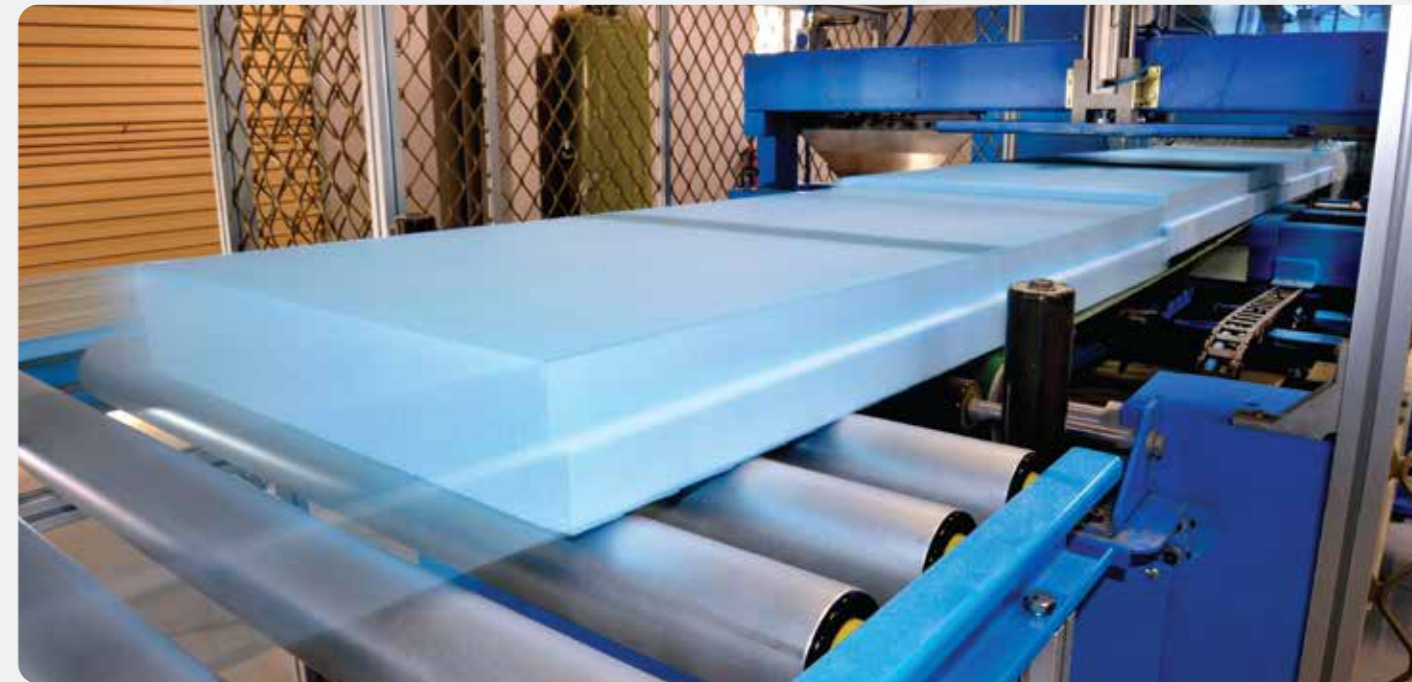
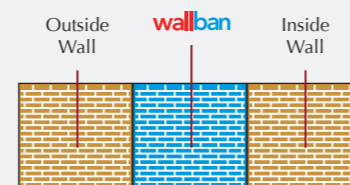
### EXTERNAL WALL INSULATION

The design and installation of external wall insulation is a specialist job. It is strongly recommended to use certified materials and components. The typical method includes attaching standard size insulation boards to the wall and finishing with a reinforced render or cladding.



### CAVITY WALL INSULATION

Many constructions are built with cavity walls. There is an outside wall and an inside wall with a gap between the two walls. This gap will be filled with XPS insulation boards.



### TECHNICAL DATA

PROPERTIES	TEST METHOD	UNIT	WALLBAN
Density	ASTM D1622	kg/m <sup>3</sup>	30-32
Thermal Conductivity @ 24°C mean temperature	ASTM C518	W/m-k Btu-in/h-ft <sup>2</sup> °F	0.03 0.21
Compressive Strength @ 10% Deflection	ASTM D1621	kPa	320 - 350
Water Absorption by Submersion	ASTM C272	% by Volume	≤1
Water Vapor Permeability	ASTM E96-00	Perm-inch	0.6 - 0.8
Dimensional Stability	ASTM D2126	% Change	<0.2
Flexural Strength	ASTM C203	kPa	380 - 400
Fire Classification (Exova - Germany)	DIN4102	Building Mat Class	B1(difficult to ignite)
Underwriters Laboratory -UL 723 = ASTM E-84 Standard test method for surface burning characteristics of Building materials under code ASTM C 578-13	UL-723 = ASTM E - 84	Fire spread + smoke developed index	10 - 25 65 - 120
Available Sizes of the xps sheets	Width 600mm	Length 1250 mm	Length 2500 mm(optional)
Thickness	25mm, 30mm, 40mm, 50mm, 60mm, 70mm, 75mm, 100mm		
Edge Profile	Ship Lap Edge		

The long-term low thermal conductivity is necessity in any thermal insulation material for builders and architects. It's excellent moisture resistance and inherent thermal performance properties has made **roofban** the ideal insulation material for roof application.

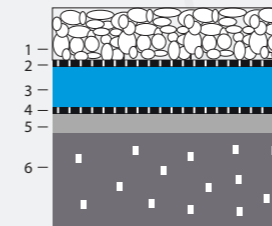


## CHARACTERISTICS OF ROOFBAN

- Offers high resistance to heat flow
- Possess very high compressive strength
- Resistant to water absorption.
- The waterproofing membrane is protected from extreme thermal stress and from the various effects of the weather.
- Possess closed and uniform cell structure
- The inverted roof system reduces maintenance cost of the roof
- Long term efficient insulation capability.

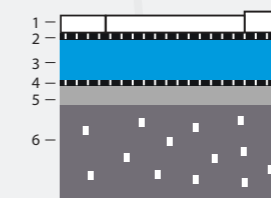
## ROOF APPLICATION

### 1. Insulation with Top Layer Gravel protection.



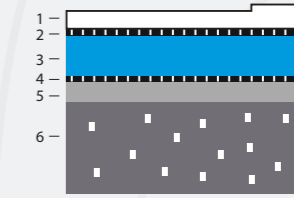
1. Gravel layer.
2. Separation layer.
3. **roofban**
4. Waterproofing membrane.
5. Screed to fall.
6. Roof deck.

### 2. Insulation with Top Layer Concrete pavers.



1. concrete pavers.
2. Separation layer.
3. **roofban**
4. Waterproofing membrane.
5. Screed to fall.
6. Roof deck.

### 3. Insulation with Top Layer reinforced with SITU Concrete.



1. Concrete slab (SITU).
2. Separation layer.
3. **roofban**
4. Waterproofing membrane.
5. Screed to fall.
6. Roof deck.

## TECHNICAL DATA

PROPERTIES	TEST METHOD	UNIT	ROOFBAN
Density	ASTM D1622	kg/m <sup>3</sup>	32-35
Thermal Conductivity @ 24°C mean temperature	ASTM C518	W/m-k Btu-in/h-ft <sup>2</sup> °F	0.028 0.2
Compressive Strength @ 10% Deflection	ASTM D1621	kPa	400 - 450
Water Absorption by Submersion	ASTM C272	% by Volume	≤1
Water Vapor Permeability	ASTM E96-00	Perm-inch	0.5 - 0.7
Dimensional Stability	ASTM D2126	% Change	<0.2
Flexural Strength	ASTM C203	kPa	400 - 425
Fire Classification (Exova - Germany)	DIN4102	Building Mat Class	B1(difficult to ignite)
Underwriters Laboratory -UL 723 = ASTM E-84 Standard test method for surface burning characteristics of Building materials under code ASTM C 578-13	UL-723 = ASTM E - 84	Fire spread + smoke developed index	10 - 25 65 - 120
Available Sizes of the xps sheets	Width 600mm	Length 1250 mm	Length 2500 mm(optional)
Thickness	25mm, 30mm, 40mm, 50mm, 60mm, 70mm, 75mm, 100mm		
Edge Profile	Ship Lap Edge		

# floorban

The excellent mechanical strength of floorban extruded polystyrene foam possess a remarkable load bearing capacity with inherent insulation properties. This is suited for all kinds of floors in warehouse, residential and commercial buildings and cold storage.

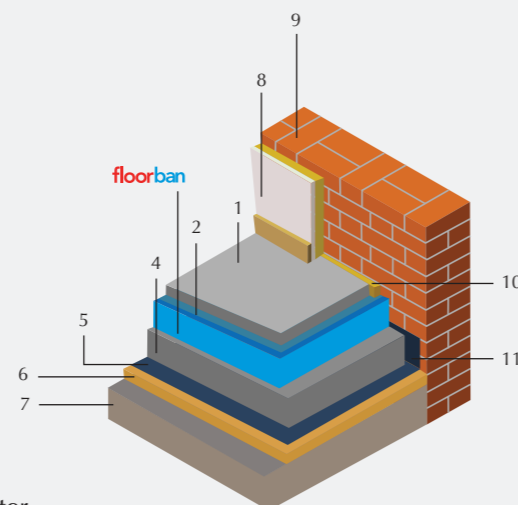
## CHARACTERISTICS OF FLOORBAN

- High compressive strength.
- Long term high insulation.
- High resistance to water absorption.
- Insulation saves energy and money.
- Density: 38-45 Kg/m<sup>3</sup>
- Board size: 1250 × 600 mm
- Thickness: 25, 30, 40, 50, 60, 70, 75, 100 mm
- Edges: Rebated edges or straight.

floorban is the ideal insulation for high load bearing floors such as those found in cold stores, warehouses, parking areas.

## FLOORBAN BOARDS CAN BE USED AS A WORKING SLAB

1. Flooring screed or boarding
2. Separating / slip layer
3. floorban
4. Concrete floor slab
5. Damp proof membranc (under slab position shown)
6. Sand blinding
7. Hardcore
8. Wall lining & skirting
9. Existing external wall
10. Insulation strip at screed perimeter
11. DPC



## TECHNICAL DATA

PROPERTIES	TEST METHOD	UNIT	FLOORBAN
Density	ASTM D1622	kg/m <sup>3</sup>	38-45
Thermal Conductivity @ 24°C mean temperature	ASTM C518	W/m-k Btu-in/h-ft <sup>2</sup> °F	0.026 - 0.027 0.18 - 0.19
Compressive Strength @ 10% Deflection	ASTM D1621	kPa	500 - 700
Water Absorption by Submersion	ASTM C272	% by Volume	≤1
Water Vapor Permeability	ASTM E96-00	Perm-inch	0.7
Dimensional Stability	ASTM D2126	% Change	<0.2
Flexural Strength	ASTM C203	kPa	510 - 525
Fire Classification (Exova - Germany)	DIN4102	Building Mat Class	B1 (difficult to ignite)
Underwriters Laboratory -UL 723 = ASTM E-84 Standard test method for surface burning characteristics of Building materials under code ASTM C 578-13	UL-723 = ASTM E - 84	Fire spread + smoke developed index	10 - 25 65 - 120
Available Sizes of the xps sheets	Width 600mm	Length 1250 mm	Length 2500 mm (optional)
Thickness	25mm, 30mm, 40mm, 50mm, 60mm, 70mm, 75mm, 100mm		
Edge Profile	Ship Lap Edge		



# أرنون ARNON

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