



Aerolam **XLPE**

Aerolam  
**bubble**  
Insulation





**AEROLAM Group** of Companies have diversified Business interests in Real Estate, Building & Construction, Education, Manufacturing, Packaging and Plastic Films. The Group boasts of cutting-edge technology, highly skilled professionals & top-quality products.

The **AEROLAM Group** of Companies comprises of leading professionals, high quality and precisely designed products, through high-end engineering and advanced R&D. **AEROLAM** Promoters with their humble team had a vision, which successfully culminated in the inception of **AEROLAM Insulations Pvt Ltd** in 2011. A purposeful market research with a clear and focused approach to understanding the need for insulation products has been a crucial factor in their growth. The need to manufacture and market products which are unique and challenging has taken the company a notch higher in the industry.

**AEROLAM** being pioneer in the Double Bubble Insulation Reflective insulation in the Indian market. Has also installed the first machine in the world to manufacture double bubble, bubble guard boards. **AEROLAM** today in real sense is a multifaceted Organization with manufacturing prowess in Reflective Insulation Material, XLPE (Chemically cross-linked closed cell polyethylene foam) Insulation Material, FIBC (PP Woven Jumbo Bags), PP Bubble Guard Board (a board with endless applications and seamless possibilities) & CPP Film (Especially for Medical & Food grade Packaging).

**BUBBLE:** **AEROLAM** is the first manufacturer in India to produce double bubble insulation and the first to have a state-of-the-art extrusion lamination technology of its kind. **AEROLAM** manufactures insulation of various thicknesses, starting from 4 mm up to 20 mm.

**XLPE:** **AEROLAM XLPE** is manufactured using world-class manufacturing equipments and facilities, capable of manufacturing products in line with the highest international standards. Highest quality raw materials, practices and quality management systems enable **AEROLAM XLPE** to deliver the best quality end-product.

**BUBBLE GUARD:** A multi-layer alveolar board made from 100% polypropylene with a unique circular honeycomb structure core at the centre and two flat surfaces on either side with great versatility and high performance. It is 100% eco-friendly & recyclable.

**CPP FILM:** **AEROLAM Closures** has developed high performing metallisable CPP and CPE structures, making it possible to replace met-PET in multi-material packaging; for this purpose, **AEROLAM Closures** has also invested in the newest Bobst metallising unit.



# Aerolam bubble Insulation

AEROLAM manufactures highly versatile Bubble Insulation solutions using the latest technology, made to order for virtually any industry.

AEROLAM is the first manufacturer in India to produce double bubble insulation and the first to have a state-of-the-art extrusion lamination technology of its kind. Aerolam manufactures insulation of various thicknesses, starting from 4 mm upto 20 mm.

AEROLAM has recently developed "Bubble + XLPE Hybrid product". We are the first manufacture to develop such product in India. In higher thickness we give flange so it is easy to install the material.





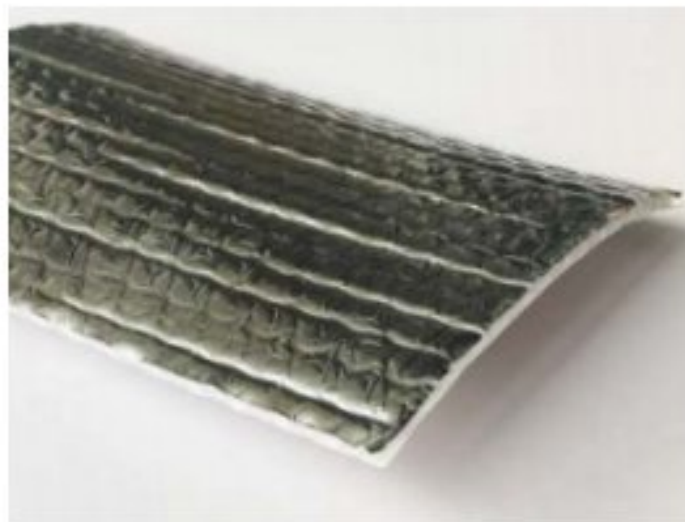
# AIR BUBBLE INSULATION COMPOSITION

## AEROLAM SUPER



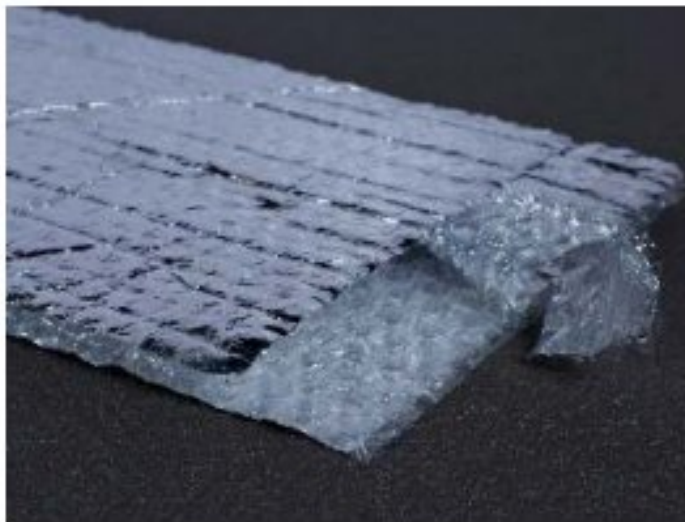
Nominal Thickness (mm): 4  
ABF Layer: **Single**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 4x10  
Roll Size (Mtrs): 1.25x40

## AEROLAM SUPER PE



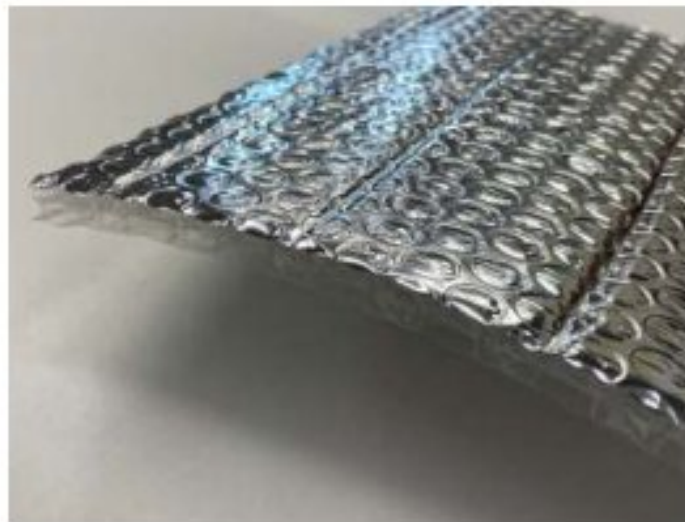
Nominal Thickness (mm): 4  
ABF Layer: **Single**  
Pure Aluminum Foil  
Lamination: **One side**  
Bubble Size (mm): 4x10  
Roll Size (Mtrs): 1.25x40

## AEROLAM PREMIUM



Nominal Thickness (mm): 8  
ABF Layer: **Double**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 4x10  
Roll Size (Mtrs): 1.25x40

## AEROLAM PREMIUM PE



Nominal Thickness (mm): 8  
ABF Layer: **Double**  
Pure Aluminum Foil  
Lamination: **Single side**  
Bubble Size (mm): 4x10  
Roll Size (Mtrs): 1.25x40

## AEROLAM SIGMA



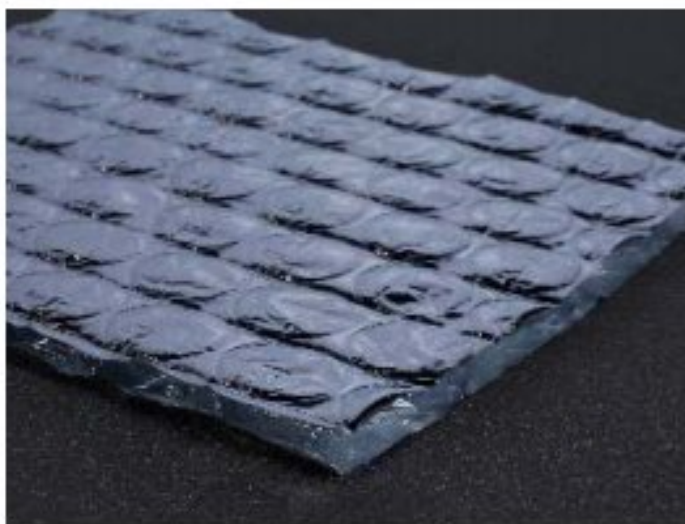
Nominal Thickness (mm): 6  
ABF Layer: **Single**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 6x20  
Roll Size (Mtrs): 1.25x40

## AEROLAM SIGMA PLUS



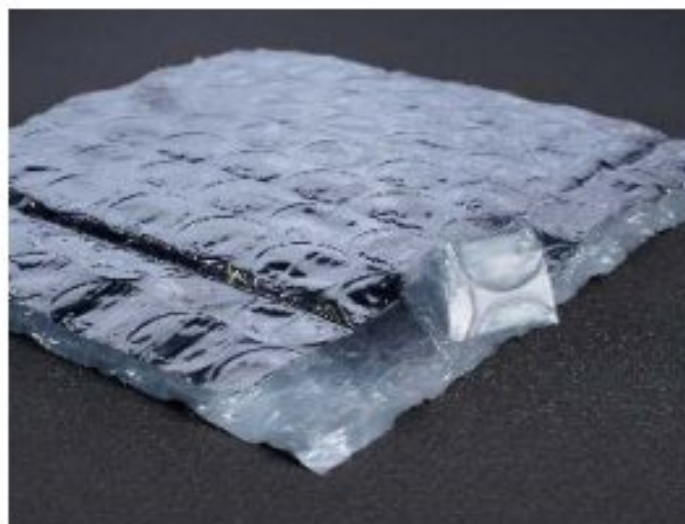
Nominal Thickness (mm): 12  
ABF Layer: **Double**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 6x20  
Roll Size (Mtrs): 1.25x40

## AEROLAM ADVANCE



Nominal Thickness (mm): 10  
ABF Layer: **Single**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 10x30  
Roll Size (Mtrs): 1.25x40

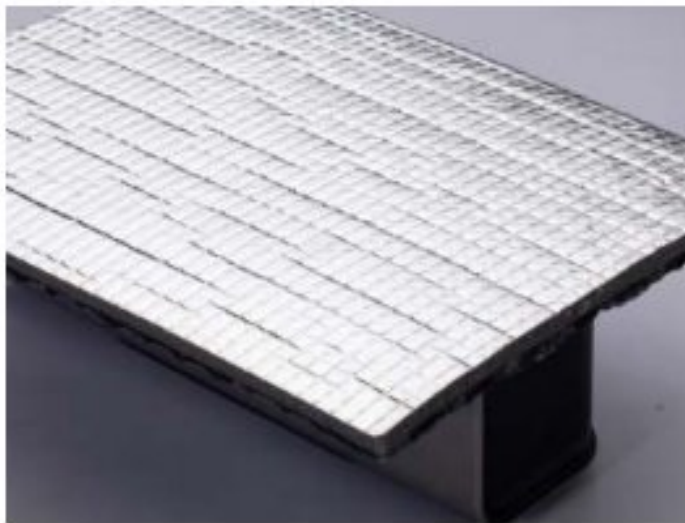
## AEROLAM OPTIMUM



Nominal Thickness (mm): 20  
ABF Layer: **Double**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 10x30  
Roll Size (Mtrs): 1.25x30

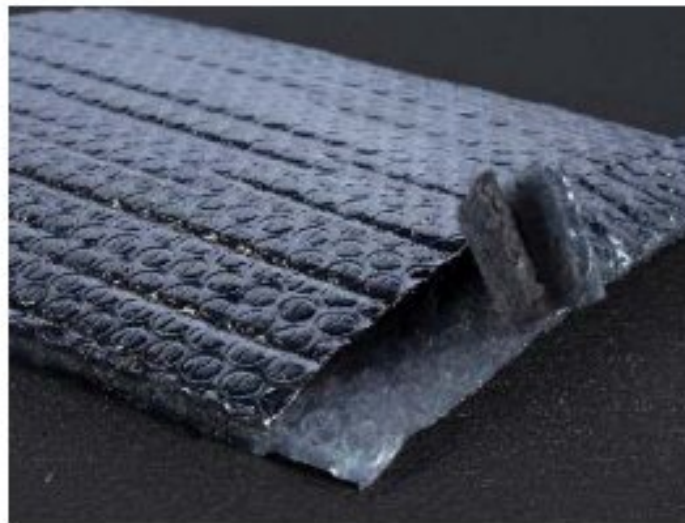
# HYBRID INSULATION COMPOSITION

## AEROLAM UNIQUE



Nominal Thickness (mm): 8  
Hybrid Layer: **ABF+XLPE**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 4x10  
Roll Size (Mtrs): 1.25x30

## AEROLAM ULTRA



Nominal Thickness (mm): 15  
Hybrid Layer: **ABF+XLPE+ABF**  
Pure Aluminum Foil  
Lamination: **Both side**  
Bubble Size (mm): 4x10  
Roll Size (Mtrs): 1.25x30



# APPLICATIONS



Various projects & buildings will require suitable methods to meet the application quality, cost & time frames.

As such our team of experts will guide the professional contractors to meet these demands for you.

Under deck insulation, applications in a new project or metal building is very economical, speedy & gets done along with the roofing system being laid.



Poultry Shed Insulation / Cow shed insulation: When it comes to proper rearing of the live stock & their controlled conditions. Aerolam insulation is very effective in reducing the heat stress caused by bare metal roofing sheds.

Poultry output, reduced mortality rates are clearly dependent on reducing the heat stress. Many poultry segments use Aerolam insulation for better results & yield.



Wall insulation. Apart from the roof assembly walling insulation is also an important parameter, Aerolam products & application methods fulfil these insulation demands delivering performance & product safety.



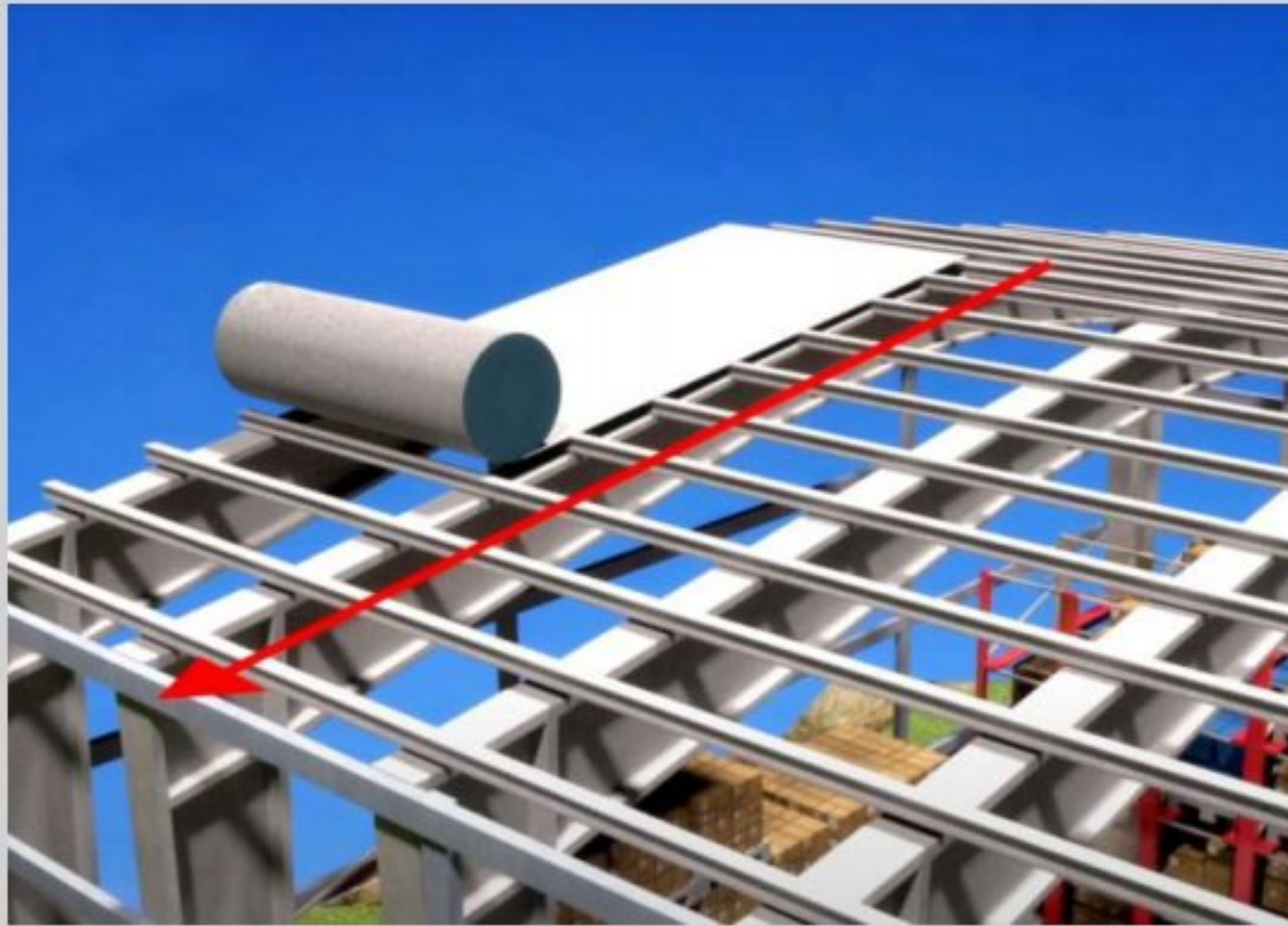
Under deck for existing building. (Retrofitting) When considering the applications for existing buildings, Aerolam products offer variety & best range to choose from. Aerolam insulation can be installed without removing the roofing sheet.

## BENEFITS OF INSULATION

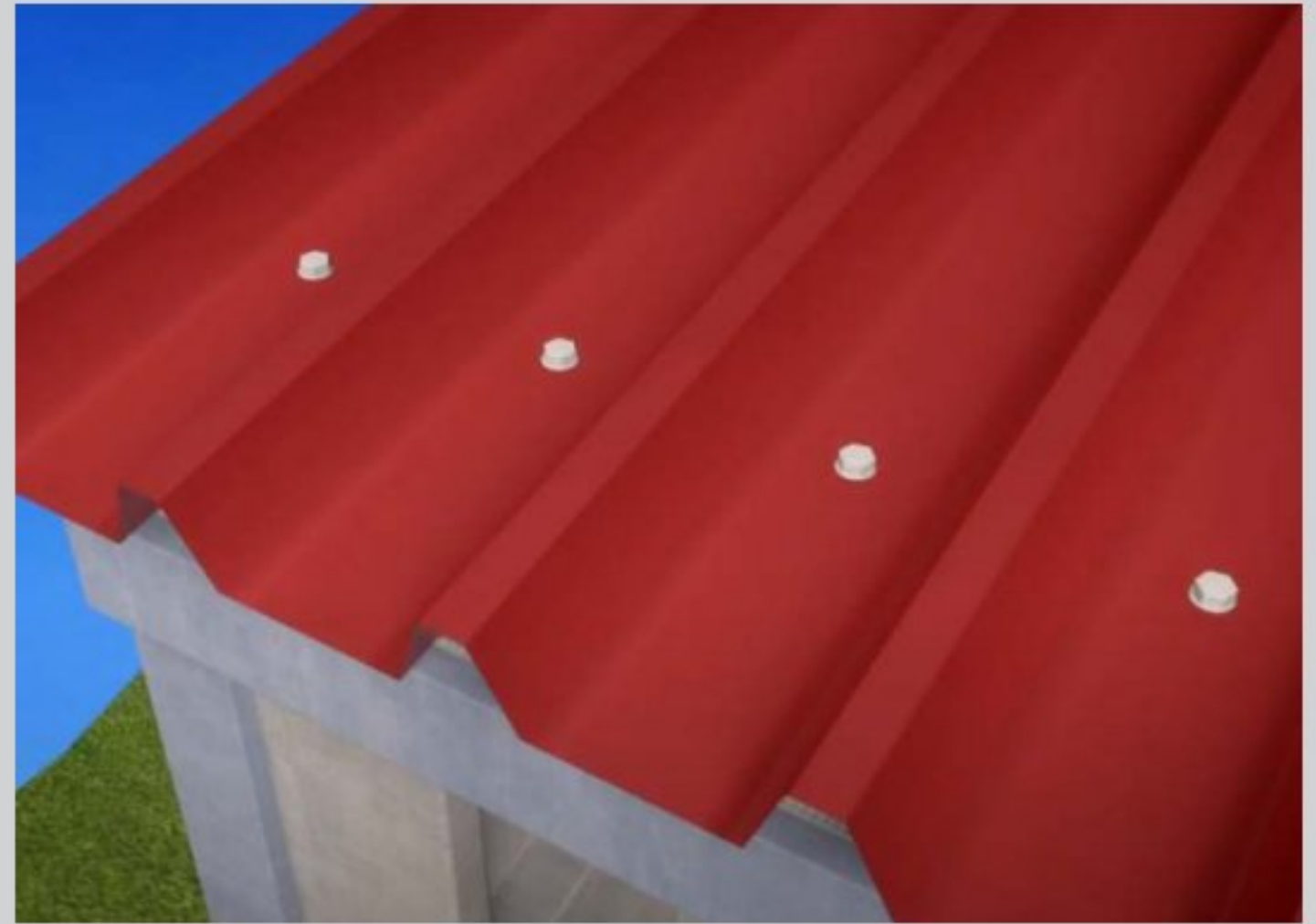
- Thermal insulation when used as under deck / walling will effectively bring down the cooling load of a building. The building envelope will protect the occupant / process & equipment from harsh weather conditions.
- When used over the AC Ducts & the Pipes Aerolam XLPE insulation will reduce the energy consumption, make the system performance improve.
- Chilled water pipelines, solar hot water distribution will require good quality insulation to reduce the heat losses & enhance energy savings.
- XLPE due to its very own nature will not aid fungal growth or create damp conditions which are mostly seen in open cell bonded materials.



# BUBBLE INSULATION AND XLPE INSTALLATION METHOD



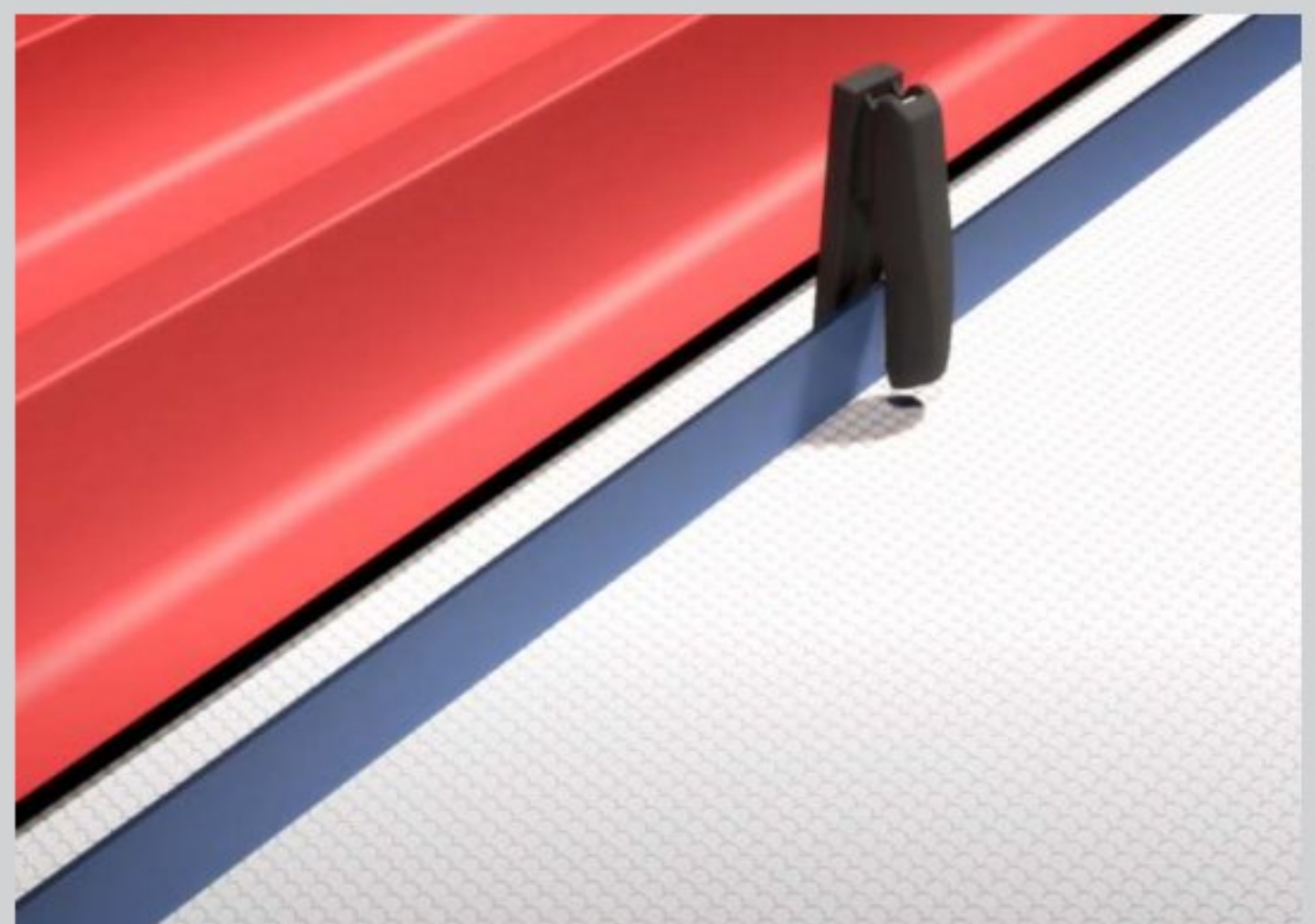
01. Unroll the insulation sheet, from bridge to eave (i.e. from the highest point to the lower). Stretch and fix the insulation sheet with drilling screws.



02. Place the metal sheet on top of the insulation sheet and fix with metal screws



03. On placing the next sheet parallel to the first, making the side overlap and staple the edges together.



04. In case of installation in a pre - existing metal structure; stretch the insulation sheet as wide as the Purlin spacing, just below the roof sheet and fixate with GI wire.

## BUBBLE GUARD INSULATION APPLICATION SUITED FOR

- WAREHOUSE
- ENGINEERING GOODS
- POULTRY
- DAIRY
- CHEMICAL INDUSTRIES
- AUTOMOBILE INDUSTRIES
- TEXTILE INDUSTRIES & HOMES
- HOSPITALS



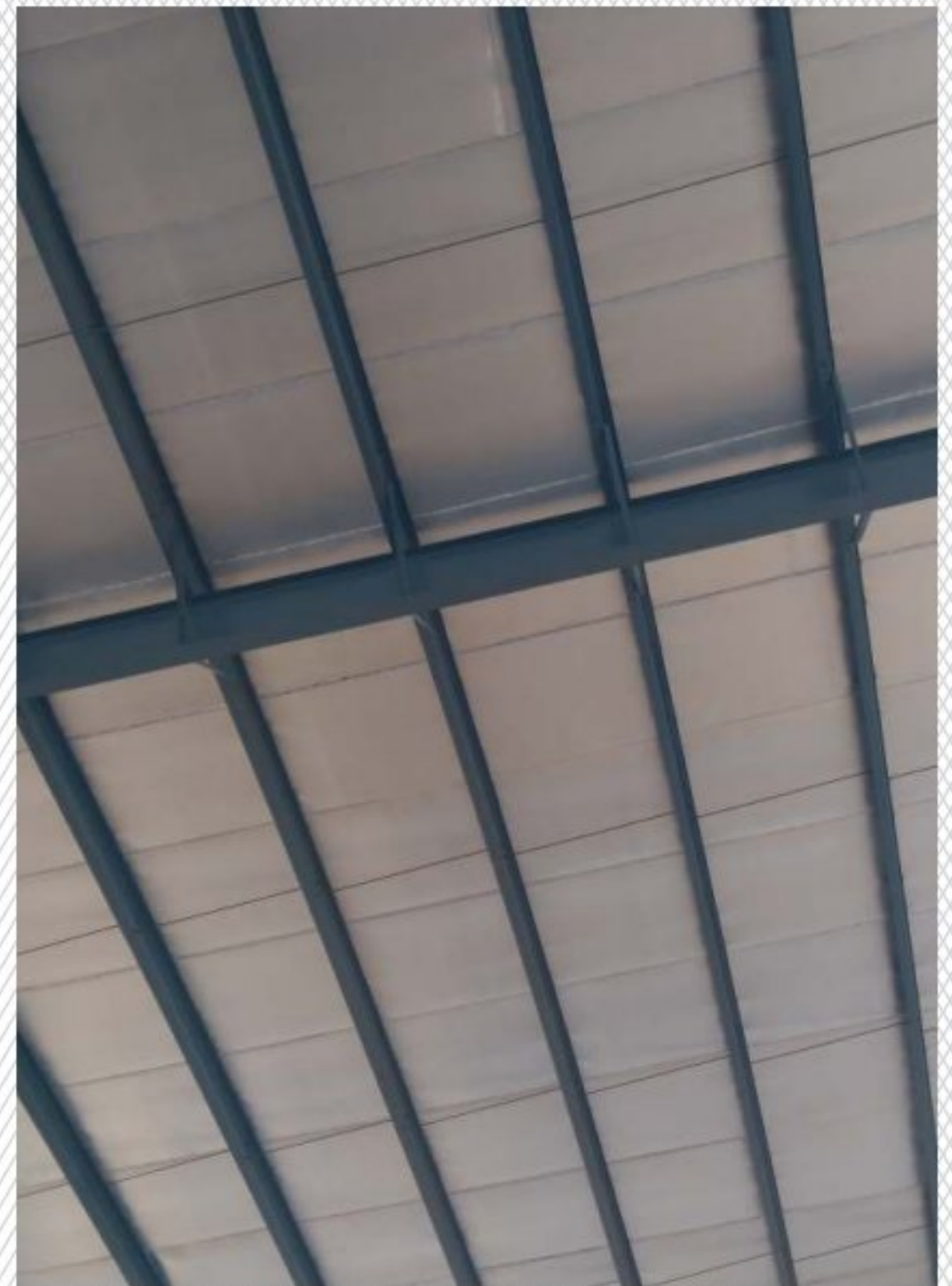


# Aerolam XLPE

Aerolam XLPE being a versatile material it can be used as under deck insulation, duct & pipe insulation and various applications in automobile industries.

In under-deck application, XLPE can be instilled in new roof, existing roof (without removing metal sheet) & also in curved roofing without any support.

Chemically cross linked closed cell polyethylene foam insulation is specially designed for HVAC segment, Under deck insulation and Pipe insulation. **AEROLAM XLPE** is manufactured using world class manufacturing equipment and facilities, capable of manufacturing products in line with the highest international standards. Highest quality raw materials, practices and quality management systems enable **AEROLAM XLPE** to deliver the best quality end-product.



## SPECIFICATIONS

Density : 30+ 3 kg/m<sup>3</sup> | Width : 1200 mm | Color: Grey

Thickness (mm) : 3, 5, 6, 9, 13, 15, 19, 25, 32, 40, 50  
(We can manufacture XLPE starting from 3 mm upto 140 mm)  
Material is supplied in standard roll length for each thickness.  
contact us for available customize roll lengths.





# FEATURES

- Negligible Water/Moisture Absorption
  - Excellent Thermal & Acoustic Insulation
  - Resistance to Fungi
  - Chemically Unreactive
  - Wide Operating Temperature Range
- Stable K Value
  - Maintenance Free
  - Flexible & Easy to Install
  - AEROLAM XLPE PIPE INSULATION with Various Cladding Options available are :- Alupet, Glass Cloth, Aeroclad & Copper Tube also

## XLPE FORM-DIMENSIONS & SIZES THAT ARE MANUFACTURED IN ROLLS / SHEETS / TUBES

XLPE	THICKNESS RANGE	WIDTH	LENGTH
ROLLS	3mm~25mm	1.2m	100m for lower thickness. And 16m for higher thickness.
SHEETS	30mm~50mm	1.2m	2m

## AEROLAM XLPE TUBINGS ARE MANUFACTURED FOR METAL/UPVC/CPVC PIPE FITTING SIZES.

XLPE	THICKNESS RANGE	INNER DIAMETER	LENGTH
TUBES	6mm~50mm	6mm~457mm	2m

\*XLPE Tubes upto diameter 1200mm possible.

Thickness (mm)	Width (mtr)	Length (mtr)	Total SQM	Thickness (mm)	Width (mtr)	Length (mtr)	Total SQM
3	1.2	100	120	15	1.2	25	30
4				19		20	24
5		80	96	25		16	19.2
6		70	84	30		2	2.4
8		50	60	32			
9		45	54	40			
12		30	36	45			
13		30	36	50			

**Types of facings/Laminations/Coatings to XLPE**  
Aluminium foil, Alupet, Metpet, Aeroclad, Black Glass Cloth, UV, Self Adhesive & Plain.





TECHNICAL DATA

Material	Aerolam XLPE is chemically cross-linked closed cell polyolefin foam with or without facing material and acrylic pressure sensitive adhesive backing
----------	---

PHYSICAL PROPERTIES				
Parameter	Standard	Value		
Density	ASTM D3575	30 KG/M3 (Foam core only)		
Thermal Conductivity	IS 3346/ASTM C518	Mean Temperature(°C)	W/m °K	Kcal/hr m (°C)
		0	0.0318	0.0273
		23	0.0329	0.0283
		46	0.0382	0.0328
Water Vapor Permeability	ASTM E96	1.4 x 10 <sup>14</sup> kg/pa.s.m		
Water Vapor Permeanse	ASTM E96	Almost zero		
Water Absorption by Volume	JIS K6767	0.00056 mg/m2		
Water Vapour Resistance Factor (μ) - mu	EN 12086	97,900		
Resistance to Fungi	ASTM G21	Zero Growth		
Resistance to Bacteria	ASTM E2180	No Growth		
CFC & HCFC Free	USEPA 8260 B	Comply		
UV Resistance	ASTM G155	Excellent		
Accelerated Weathering Test	ISO 4892	Excellent		
VOC Level (Green Star Rating)	ASTM D5116	0.018 mg/m2/hr		
ROHS	IEC 62321	Comply		
Resistance to Chemical	ASTM C543	Very Good		

FIRE & SMOKE PROPERTIES		
Class O	BS 476 Part 6 & 7	Comply
Reaction to Fire(NFPA 90A & B)	ASTM E84	FLAME Spread Index <25
		Smoke Development Index <50
Hot Surface Performance (NFPA 90A & B)	ASTM C411	Comply
European Railway Standard for Fire & Smoke	EN 45545	Comply to R1HL3 Requirement
Fire Classification of Construction Products	EN 13501	Comply to B-s1 d0
Smoke Density	ISO 5659-2	Comply
Deterioration of visibility due to smoke	ULC 564	Class A
Horizontal Burning Test	UL-94	Approved with HF-1 Class (File No:E 504824)
FM Approval	FM 4924	COC Approval Identification:3063893