

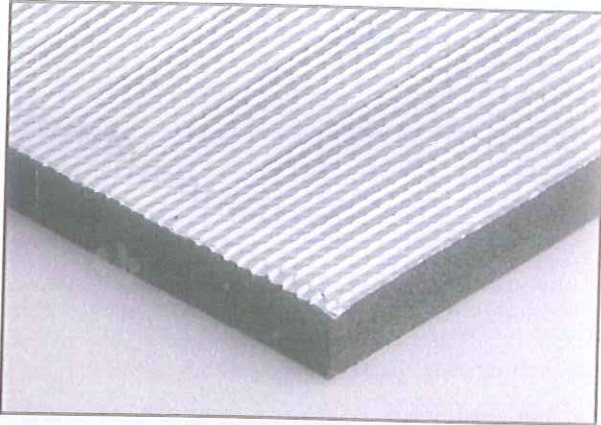


**THERMOSHIELD™**

**TOTAL PROTECTION  
FROM HEAT AND SOUND**

*The Quick and Easy Way.*

# GENERAL INFORMATION



**Thermoshield™** is a flexible thermal and sound insulation material constructed by laminating a closed-cell, cross linked Polyethylene foam with a tough re-inforced aluminium foil facing.

**Size Available** : 5mm x 1000mm x 50m  
10mm x 1000mm x 25m  
15mm x 1000mm x 20m  
20mm x 1000mm x 10m  
25mm x 1000mm x 10m

**Thermal Conductivity** : 0.032 W/m K (@ 20°C, 50-70% R.H.)  
(JIS A 1413)

**Moisture Permeability** : Less than 1.0g/m<sup>2</sup>/24hr (@ 38°C,  
90% R.H.), (ASTM E96)

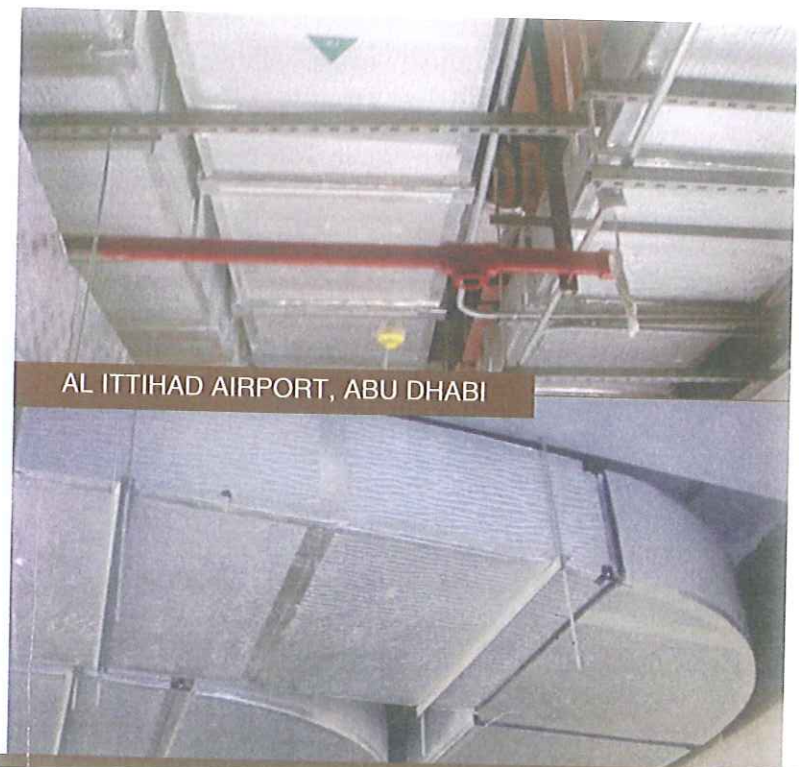
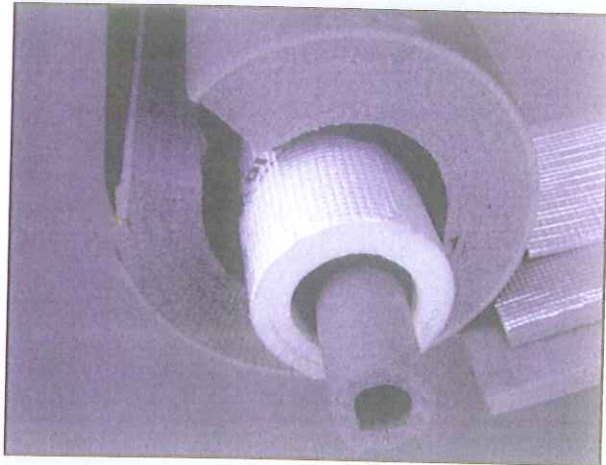
**Water Absorption** : Less than 0.5% (Vol)  
(7 days)

## Application Methods:

1. Mechanical wrapping of Thermoshield™ around duct and fastening with steel weld pins at 400mm centres to ensure a tight fit.
2. Thermoshield™ can be overlapped or butt joined using a sharp knife for ease of fabrication.
3. Adhesive - Thermoshield™ can be supplied with pressure sensitive acrylic adhesive. Care must be taken to remove any contamination from the duct surface, eg. grease, oil, dust and loose scale etc. to ensure a proper vapour seal.
4. All edges and joints can be sealed using 72-76mm wide re-inforced acrylic adhesive foil tape.

## BENEFITS OF THERMOSHIELD™

- Completely user friendly, does not emit dust or fibre particles, either in service or installation.
- Is not irritating to the skin.
- Odourless
- Can be supplied in roll form, sheets or slitting to required width available on request.
- Available in a variety of thickness 5mm, 10mm, 15mm 20mm and 25mm. Other thicknesses available on request. Can be supplied with adhesive.
- Lightweight, easily transported and flexible for ease of application.
- Completely closed cell, therefore it does not hold water altering its insulation properties, or allow the build up of bacteria contamination.
- Complies under AS1530.3-1989 and British Standard BS476 part 6 & 7.
- Reduces drumming and provides vibration dampening.



# SPECIFICATIONS

# PROJECTS IN DUBAI

## A) FOAM SPECIFICATION

Material	Closed Cell Polyethylene Foam		
Properties	ISO Standard	Unit	Value
Density	845	Kg/m <sup>3</sup>	25
Tensile Strength lengthwise crosswise	1926	Kpa Kpa	210 160
Tensile Elongation lengthwise crosswise	1926	% %	130 135
Compression Strength deflection 10% deflection 25% deflection 50%	844	Kpa Kpa Kpa	12 25 65
Compression Set 22h charge, 23°C deflection 25% 0.5h after discharge 24hr after discharge	1856 C	% %	25 17
Thermal Conductivity at 10°C at 20°C at 40°C	2581	W/mk W/mk W/mk	0.031 0.032 0.036
Working Temperature Range	internal	°C	-70/100
Water Absorption (7 days)	internal	vol%	<0.5
Shore Hardness 0/00	internal		13/30
Dimensional Change on Heating 22hrs @70°C lengthwise crosswise	internal	% %	-2.0 0.5

## B) FOIL SPECIFICATION

Material	: Aluminium foil re-inforced with 12um LDPE film
Thickness	: 7um Al foil + 12um LDPE film (total 19um)
Moisture Permeability	: Less than 1.0g/m <sup>2</sup> /24hrs (@ 38°C, 90% R.H.) (ASTM E96)

## C) CHEMICAL & FIRE HAZARD PROPERTIES OF THERMOSHIELD™

Early Fire Hazard (AS1530, Part III)	: Ignitability	0
	: Spread of flame	0
	: Head evolved index	0
	: Smoke evolved index	1
Chemical Resistance	: Water (Unaffected), Seal Water & brine Soap & detergents, Diluted acids Diluted detergents/alkalis, Alcohol, Ketones, Esters	
Resistance to Fungi	: Aspergillus Niger, Penicillium Citrinum Rhizopus Nigricans, Cladosporium Resinae Chatomium Globosum	



OLD TOWN



DISCOVERY GARDEN

# THERMOSHIELD™

*Marketed by:*



**Alpha Star** TRADING

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