

Thermo-Foil ES is a double sided single foil for use as a heat reflective lining in domestic, commercial and industrial buildings. This tough product, with its Valéron core has been specifically engineered to withstand the rigours of site work. Thermo-Foil ES has an emissivity of only **0.03**, so over **96.5%** of radiant heat is reflected back (hot or cold).

## Quality

Thermo-Foil ES has Fire Certification to BS476 Part 6 and Part 7 and Dubai Municipality Certification. It has been designed and tested to last the lifetime of a house.

## Installation

To act as a radiant barrier Thermo-Foil ES is installed within a structure facing at least one air space, (usually 19mm to 25mm). Apollo's high performance adhesive tape can be used to seal the joints between adjacent sheets, around stud-work, door or window frames. The Thermo-Foil ES system can be installed within floors, walls, ceilings and roofs, and is suitable for both hot and cold climates.

Its inclusion will reduce the thickness of the soft insulation required, substantially minimising energy needs and improving comfort for occupants. The membrane eliminates excessive heat gain caused by incoming solar radiation yet can keep the room warm during cold weather. No matter the season, room temperatures are far easier to control.

## Vapour Control Layer

The membrane is 100% water proof and is an excellent vapour barrier to seal new or existing soft insulation, ensuring insulation performance is not compromised by interstitial condensation, which reduces insulation performance and may cause damage to the overall construction.

## Thermo-Foil R Values

Wall 0.66 m<sup>2</sup>KW - Horizontal Heat Flow  
Ceiling 0.45 m<sup>2</sup>KW-Upwards Heat Flow

Floor 1.33 m<sup>2</sup>KW - Downward Heat Flow

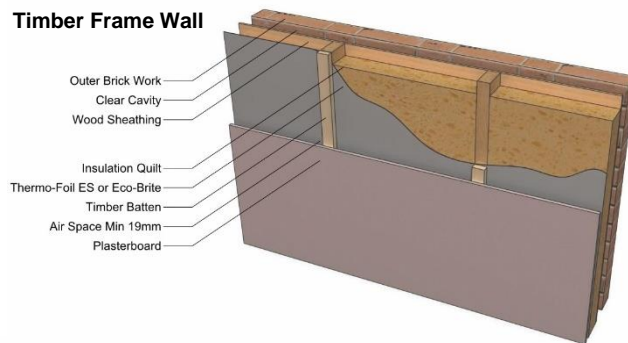


## Product Benefits

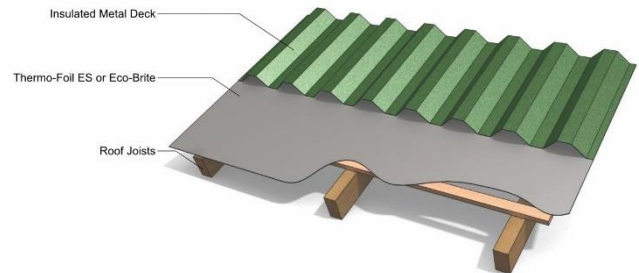
- Very low emissivity
- Fire Certificate to BS476 Part 6 and Part 7
- Excellent vapour barrier
- Helps to avoid condensation risk
- Reduces air leakage
- Corrosion and damage resistant reflective surface
- Excellent nail tear resistance
- Easy to use
- Full Technical Support available

## Installation

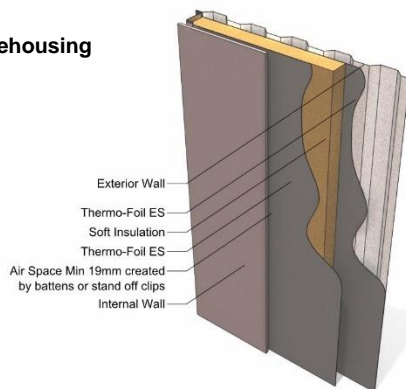
### Timber Frame Wall



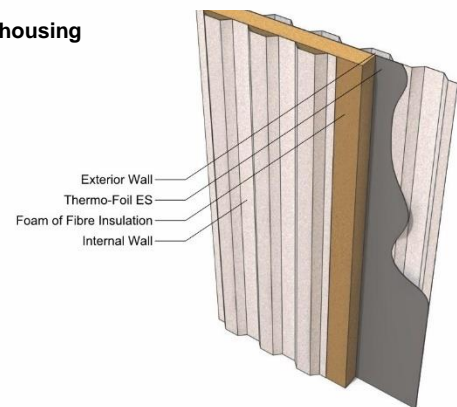
### Roof - Tropical Climate



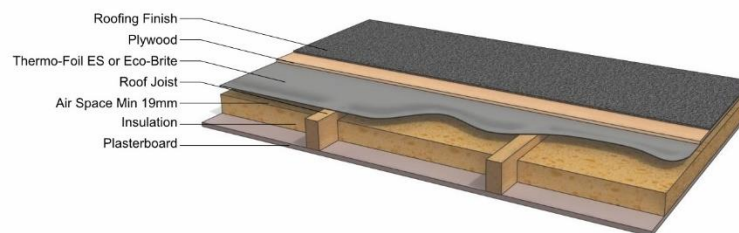
### Warehousing



### Warehousing



### Flat Roof



## Technical Details

Reflectivity (ASTM E903)	Over 96.50%
Emissivity (ASTM E408)	0.03
Carbon Emissions Saved	Up to 23kg per m2 /annum
Roll Size	96m x 1.25m 120m <sup>2</sup>
Nominal Thickness	145 microns
Tear Resistant (ASTM D882) Machine Direction (MD)	Tensile 6620N/m, Trouser tear 33.1N,
Tear Resistant (ASTM D882) Cross Direction (CD)	Tensile 5487N/m, Trouser tear 33.9N,
Beach Puncture Resistance (ASTM D774)	40.1kg-cm
Corrosion resistant	Unique surface coating
BS476 Part 6 Fire Propagation	Class 0
BS476 Part 7 Surface Flame Spread	Class 1
Temperature Resistant	- 30°C to + 120°C
Pressure Wash Resistant	207 bar at 300m