

# Insul-Foam

## High Efficiency Closed Cell Insulation Board

### Description

Insul-Foam is a rigid, closed cell, extruded polystyrene foam insulation board with an integral skin on the top, bottom and sides and sealed cells. It is produced by a continuous, fully automated extrusion process in accordance with strict quality standards.

### Uses

Insul-Foam is strictly quality controlled and engineered for premium insulation efficiency. It does not contain any CFC or other restricted blowing agents.

- Chemind roofing systems incorporating Insul-Foam will save up to 60% of the energy demand for heating and cooling.
- Major application is built-up roofing with ballast (Inverted Roof Membrane Assembly - IRMA). Also used for cool rooms, sandwich panels, under storage tanks, wine cellar walls and floors as well as model making.
- It is widely used in rural industries such as wineries, poultry sheds and piggeries as roof-insulation fixed between metal roofing and purlins. Insul-Foam is also used in residential construction of insulated external walls with decorative textured render finish.

### Features

Insul-Foam insulation places waterproof membrane in a thermally conditioned environment, substantially increasing its life span.

- Complies with maximum **Green Star** requirements
- Has zero VOC level
- Insul-Foam also available in **Zero ODP** grade
- Fully closed cell - no moisture pick-up
- High strength, guaranteed insulation
- Fire resistant - self extinguishing
- Reduces energy demand by 60%
- Bacteria and micro-organism resistant
- Exceptional thermal resistance (R) value
- No CFCs - environmentally friendly
- Increases life of the roofing membrane
- Light weight, convenient sheet size
- Reduces thermal stress on the roof slab
- Quick pay back through energy savings

### Typical Properties

Composition	Extruded Polystyrene Foam	
Nominal Sheet Thickness	25, 50, 75, 100mm	
Thermal Resistance (R-Value approx) (m <sup>2</sup> K/W)	25 mm	R = 0.90
	50 mm	R = 1.79
	75 mm	R = 2.68
	100 mm	R = 3.57
Compressive Strength	300 kPa	
Density	32kg/m <sup>3</sup>	
Water Absorption	0.3% by volume	
Water Vapour Diffusion	1.0 ng/Ns	
Thermal Conductivity @ 24 °C	0.028 W/mK	
Dimensional Stability	± 1.0% (dimensional change)	
Fire Behaviour	Self Extinguishing	

### NOTE

Design a Total Insulated Waterproofing Envelope package with Chemind and Grace Systems.

### Preparation

Substrate should be clean and free from debris. Installed waterproofing membranes must be inspected to insure that there are no signs of damage.

Repair any damaged areas before Insul-Foam application.

### Application

Install Insul-Foam over clean membrane. Cut and apply the Insul-Foam sheets ensuring a neat fit of edge profile.

Secure in place prior to installing stone ballast, paving slabs or topping on roof or deck applications.

For internal cladding (wine cellars, application to roof-slab soffit, etc.) adhere board with Chemind Chemflex, water based stud or contact adhesive. If nailing is required, use a flat head nail and washer to adequately support the foam board.

## Surfacing

- **Ballasted Roofing**

**Gravel Finish** – Cover with geotextile filter fabric followed by 50-75 mm thick layer of 30-50mm washed river gravel as protective ballast. Ensure that no area of slab is overloaded by ballast, before distribution.

**Concrete Paving Slabs** – Cover with 0.2 mm PE film followed by 40-50 mm thick pavers supported on Chemind Multi-Pads, a mortar bed or packers.

**Concrete Topping** - Use 0.2 mm PE film slip-sheet with a reinforced 100-150 mm thick concrete slab.

- **Protective Coating**

Insul-Foam may be coated with water based paints for decorative needs or Chemind Chemcote W to give a tough, abrasion resistant coating finish.

- **Rigid Surfaces**

Fabric reinforced, polymer modified cement render or fibre-cement sheet may be applicable.

Contact Chemind Technical Department for specification assistance and other surfacing or special needs such as panel fabrication and cold-room panel lamination.

## NOTE

- A typical 200 mm slab with Chemind Aquagard M membrane, 50 mm Insul-Foam and 50 mm gravel ballast has an overall thermal resistance of approx. R 2.3 – R2.5.
- A typical 200 mm slab with Chemind Newflex membrane, 50 mm Insul-Foam and concrete pavers positioned on Chemind Multi-Pads has an over all thermal resistance of approximately R 2.5.
- Do not apply solvent-based adhesives, mastics or coatings directly to Insul-Foam.



## Coverage

Sheet sizes shown are surface cover. However, an allowance of approximately 5% should be made for cutting and waste. Other Insul-Foam applications will require discretionary judgement or experience.

## Packaging

- Sheet size 2.5m or 3.0m x 600mm
- Sheet thickness usually available ex stock: 25mm, 50mm or 75 mm. Optional thicknesses available by indent order are: 60mm, 80mm and 100mm. Sheet length and colour may be varied.
- Optional edge treatment in ship-lap, tongue and groove or plain square edge may be available.
- Pack size:

25, 50mm	10 sheets/pack
75mm	7 sheets/pack
100mm	5 sheets/pack

Edge treatment of available stock may vary depending on project demand.

Check with Chemind representative for any specific projects requirements.

## Shelf Life

Insul-Foam has an indefinite shelf life when stored in a dry, cool place.

## Clean-up

Product clean up is not necessary. Insul-Foam off-cuts should be removed and stored. Do not allow waste to become trapped under adjacent installed work.



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