



the knowledge to produce solutions



## DCT GA Extruded Polystyrene

**XPS cold store floor and ceiling insulation**



# DCT GA

## xps insulation



### Description

The specification of insulation for ground floors is more complex than that for walls or roofs. This is because the mechanisms for heat flow are affected by the ratio of surface area to perimeter.

**DCT GA** extruded polystyrene is ideal for insulating ground bearing concrete floors and suspended floors in by providing excellent long term thermal insulation and the ability to maintain this characteristic under extreme conditions of compression, humidity and temperature. The exceptional compressive strength enables **DCT GA** to easily resist several tons/m<sup>2</sup> downward pressure.

The **DCT GA** boards are rot proof, stable and durable and will have a life equivalent to that of the structure in which they are incorporated.

The closed cell structure of **DCT GA** foam makes water absorption almost non-existent and provides a high resistance to vapour transmission.

### Exceptional Strength

- Proven long term performance
- High resistance to settlement and compaction
- Dimensional and edge profile stability

### Excellent moisture performance (closed cell structure)

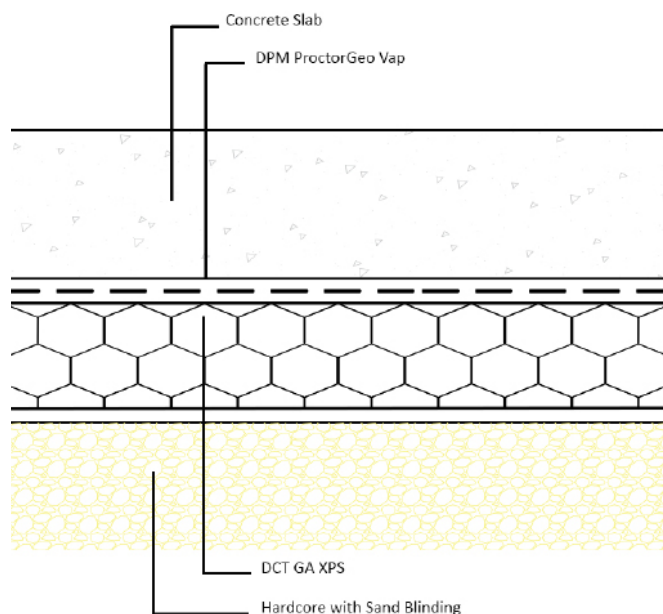
- Very high resistance to moisture penetration
- Low vapour permeability
- High resistance to freeze thaw cycles
- Durability provides long term retention of these properties

### Superior thermal resistance

- Low thermal conductivity
- Thinner boards required compared to some traditional materials

### Health and Safety

- CFC and HCFC free formulation
- Zero ozone depletion potential (ODP)
- Green Star Compliance
- Non-irritant, light and easy to handle
- Clean, easy cutting, robust and inherent weather resistant
- Specially designed tongue and grooved edge profiles to facilitate rapid and robust installation
- Manufactured in accordance with EN 13164 : 2001, Section 4.2 and the relevant parts of Section 4.3



**Location:** **DCT GA** is laid directly onto level slab. In addition, **DCT GA** can be placed vertically around the edge of the slab inside the form-work.


**Preparation:** Confirm with a structural engineer for the required compressive strength required.

**Installation:** Lay non-porous rigid board directly onto the levelled ground that will be under the slab, excluding footings and structural beams. Lay separating damp proof membrane (DPM) above the DCT GA XPS, lapping 100mm at joints.

### Specification Clause

**DCT GA** extruded polystyrene general application board should be described in the specification as:-

The insulation shall be **DCT GA** \_\_\_\_\_mm non-porous cellular extruded polystyrene (XPS) foam panel with minimum compressive strength \_\_\_\_\_ kPa. Zero ODP, CFC and HCFC free. **DCT GA** extruded polystyrene general application board is distributed by Dynamic Composite Technologies - T: 1800 051 100.

Product Name	DCT GA Cold Store XPS Insulation	
Product Description:	Non-porous, closed cell, high performance, rigid extruded polystyrene insulation board used for insulating ground bearing concrete floors and suspended floors in cold stores and freezers	
Composition and Surface finish:	Closed cell extruded polystyrene, surface skin	
Product Code:	DCT GA XPS	
Colour:	Sand	
Edge Profile:	Tongue and grooved or butt edge on all edges	
Width:	600 mm	
Length:	2500 mm up to 4000 mm	

<u>Compressive Stress</u> Standard Class	≥300 EN 826 CS (10\Y)300	≥400 EN 826 CS (10\Y)400	≥500 EN 826 CS (10\Y)500	≥700 EN 826 CS (10\Y)700
<u>Compressive Creep</u> Standard Class	EN 1606 CC (2/1.5/50)125	EN 1606 CC (2/1.5/50)125	EN 1606 CC (2/1.5/50)175	EN 1606 CC (2/1.5/175)
<u>Resistance to freeze</u> Standard Class	EN 12091 FT2	EN 12091 FT2	EN 12091 FT2	EN 12091 FT2

### Delivery, handling and storage

**DCT GA** extruded polystyrene insulation boards are delivered shrink-wrapped. **DCT GA** is light, rigid and clean and pleasant to handle and install. It is easily cut to size or trimmed using a knife or saw. **DCT GA** should be stored flat in a ventilated area and protected from accidental damage, contact with volatile solvents, flames and extended exposure to UV and sunlight.

## Nominal thickness to R-Value

DCT GA XPS Insulation @ 24°C

Nominal Thickness (mm)	DCT GA300 R-Value (0.025 m <sup>2</sup> K/W)	DCT GA400 R-Value (0.029 m <sup>2</sup> K/W)	DCT GA500 R-Value (0.029 m <sup>2</sup> K/W)	DCT GA700 R-Value (0.039 m <sup>2</sup> K/W)
25	1.0	0.9	0.9	0.6
30	1.2	1.0	1.0	0.8
35	1.4	1.2	1.2	0.9
40	1.6	1.4	1.4	1.0
50	2.0	1.7	1.7	1.3
60	2.4	2.1	2.1	1.5
75	3.0	2.6	2.6	1.9
80	3.2	2.8	2.8	2.1
90	3.6	3.1	3.1	2.3
100	4.0	3.4	3.4	2.6
120	4.8	4.1	4.1	3.1



# about dctech

Dynamic Composite Technologies, or as we are now known DCTech, has been serving the Australian building industry with an extensive portfolio of technically advanced thermal insulation, geotextile membranes, rainscreen cladding brackets and fibreglass reinforced plastic wall and ceiling liner panels - which have been tried and tested to Australian building codes and standards.

This diverse portfolio provides DCTech with the ability to consider the building envelope holistically and hence develop a 'total system solutions' for a wide range of building applications. DCTech total system solutions incorporate high-performance building materials and innovative solutions which are designed to meet the continuously evolving requirements of the Australian building industry.

DCTech total system solutions address the risk of interstitial condensation, affords BCA, NCC and Greenstar compliant thermal efficiency and optimum acoustic and fire performance.

Ensure you specify the right system for the right application, look for the orange 'Powered by DCTech' stamp of approval.



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