

PROTEUS PRO-THERM CELLULAR GLASS INVERTED



PRODUCT DETAILS

Product name	Proteus Pro-Therm Cellular Glass Inverted
Product type	Cellular glass insulation

PRODUCT DESCRIPTION

Proteus Pro-Therm Cellular Glass Inverted is an A1 non-combustible insulation, manufactured from specially graded recycled glass and natural raw materials (sand, dolomite, lime etc).

With a pre-applied inorganic coating on its topside (also A1 non-combustible), it serves as the top insulation layer in inverted roof applications.

Can be combined with **Proteus Pro-Therm Cellular Glass** if multiple insulation layers are required, where **Proteus Pro-Therm Cellular Glass Inverted** is always the top layer, installed with its coated side facing up.

It is inorganic, contains no ozone depleting repellents, flame resistant additives or binders. Without VOC or other volatile substances.

APPLICATION

Proteus Pro-Therm Cellular Glass is suitable for use in inverted roof build ups above the following waterproofing membranes:

- Cold Melt®
- Proteus Hot Melt®
- Pro-BW® Plus
- Pro-BW® LO

INSTALLATION

- **Proteus Pro-Therm Cellular Glass Inverted** is to be laid over the already laid waterproofing membrane
- The waterproofing membrane must be flat, clean and free from debris
- Special care should be given to waterproofing membrane during installation of **Proteus Pro-Therm Cellular Glass Inverted** to avoid any accidental damage
- Insulation can be cut to shape using a fine-toothed saw or panel saw. Ensure accurate trimming to achieve close-butting joints and continuity of insulation
- Start laying the **Proteus Pro-Therm Cellular Glass Inverted** boards from the point of access to the roof
- Boards should always be loose-laid break bonded, either with their long edges at right angles to the edge of, or diagonally across the roof, and with joints lightly butted. There should be no gaps at abutments
- If two or more layers of insulation are required, they should be horizontally offset relative to each other so that, as far as possible, the board joints in any two adjacent layers do not coincide with each other
- Once in place, insulation's surface should be protected to distribute the loads on top, during installation of subsequent layers
- Once laid, **Proteus Pro-Therm Low-K** membrane is then installed on top of the insulation

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TECHNICAL INFORMATION

Characteristic	Value	Unit	Standard
Density ($\pm 15\%$)	100	kg/m ³	EN 1602
Squareness	≤ 5	mm/m	EN 824
Flatness	< 2	mm	EN 825
Thermal conductivity	0.038	W/m·k	EN ISO 10456
Reaction to fire	A1	Euroclass	EN 13501-1
Point load	≤ 1.5	mm	EN 12430
Point load top	≤ 1	mm	EN 12430
Compressive strength	≥ 400	kPa	EN 826
Bending strength	≥ 400	kPa	EN 12089
Tensile Strength	≥ 100	kPa	EN 1607
Water absorption (short term)	< 0.5	kg/m ²	EN 1609
Specific heat	1000	J/(kg·K)	EN ISO 10456
Reaction to fire	A1	-	EN 13501-1
Hygroscopicity	zero	-	-
Capillarity	zero	-	-
Melting point	> 1000	°C	DIN 4102-17
Thermal expansion coefficient	9×10^{-6}	K ⁻¹	EN 13471
Service temperature limits	-265 / +430	°C	-
Colour	Dark Grey	-	-

SIZE, FINISH AND COLOUR

Product Code	Length mm	Width mm	Thickness mm	Unit weight kg	Area weight kg/m ²	Units per pack
INFINV050	600	450	50	1.4	5	96
INFINV100	600	450	100	2.7	10	48
INFINV120	600	450	120	3.2	12	40
INFINV140	600	450	140	3.8	14	32
INFINV160	600	450	160	4.3	16	28
INFINV180	600	450	180	4.9	18	-
INFINV200	600	450	200	5.4	20	24

SHELF LIFE AND HANDLING

Pallets should be stored undercover in a dry area.
Always use relevant safe manual handling techniques relevant to a products size and weight.

MATERIAL

Recycled glass.

PACKAGING

Boards are supplied on pallets wrapped in polythene.

LIMITATIONS OF USE

For professional use only.

GUARANTEES

Defects arising from lack of maintenance or abnormal use may fall outside of the cover of the Proteus Waterproofing guarantee.

GUIDELINES AND STANDARDS

It is the responsibility of the Contractor to thoroughly familiarise themselves with all relevant Codes of Practice and Building Regulations to the works or referred in the specification.

Proteus Waterproofing take no responsibility for misinterpretation or lack of knowledge for third parties.

The works shall be carried out in accordance with the requirements of:

- **BS 6229** Flat roofs with continuously supported flexible waterproof coverings - Code of practice
- **BS 8217** Reinforced bitumen membranes for roofing - Code of practice
- **BS 8000-0** Workmanship on construction sites - Introduction and general principles
- **BS 8000-4** Workmanship on building sites - Code of practice for waterproofing
- **LRWA** [Design Guide for Specifiers](#)
- **S2T** [Safe to Torch](#)
- **GRO** [Code of Best Practice](#)