



SPECIFICATION SHEET

January 2025

PRODUCT REFERENCE

Insulated Roof Panel PIR 30mm



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GENERAL DATA

PRODUCT CODE

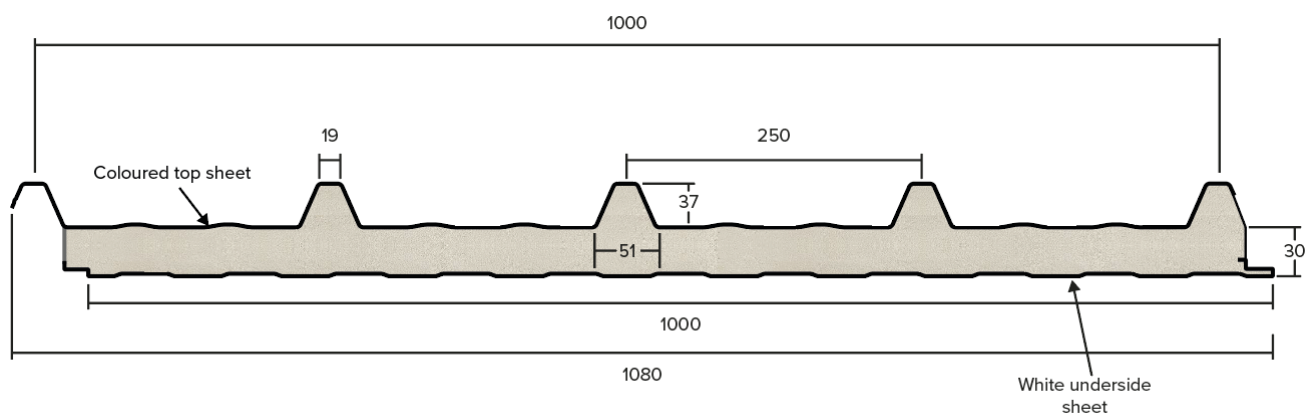
- **Roof Panel:** Insulated Roof Panel PIR 30mm

DETAILS OF CLASSIFIED PRODUCT

Nature and end use application

The product **INSULATED ROOF PANEL PIR 30MM** is defined as a self-supporting double skin metal faced insulating panel. Its classification is valid for the following end use application(s):

- Wall - Without non combustible substrate
- Ceiling- Without non combustible substrate



| TECHNICAL DATA | VALUE |
|------------------------------|------------------------|
| Overall width | 1080mm |
| Cover width | 1000mm |
| Corrugation pitch | 250mm |
| Depth of profile | 37mm |
| Side lap | 1 rib |
| Minimum end lap | 75mm |
| Minimum roof pitch | 4 Dg |
| Approx weight when installed | 7.42 Kg/m ² |
| Maximum purlin spaces | 1880mm |
| Cutback | 75mm |

CHARACTERISTICS

| ELEMENT | THICKNESS | REFERENCE STANDARD |
|----------------------|-----------|--------------------|
| Topside metal facing | 0.40mm | EN 14509 |
| Insulation core | 30mm | EN 14509 |
| Underside liner | 0.40mm | EN 14509 |

INSULATION TABLE

| INSULATION THICKNESS | CORE TYPE | WEIGHT | DENSITY | U-VALUE | RW | THERMAL RESISTANCE R |
|----------------------|----------------------|------------------------|------------------------|-------------------------|---------|-------------------------|
| 30mm | Polyisocyanurate PIR | 7.42 Kg/m ² | 40±5 kg/m ³ | 0.71 W/m ² K | 23.0 dB | 1.41 m ² K/W |

CHARACTERISTICS TABLE

| ELEMENT | VALUE |
|--|--------------------------------|
| Density (with skin) | 40 Kg/m ³ |
| Density (without skin) | 36-38 Kg/m ³ |
| Thermal transmittance | 0.71W/m ² K |
| Thermal conductivity | $\lambda = 0.023 \text{ W/mK}$ |
| Reaction to fire | B-s2,d0 |
| Fire resistance | Broof T2-T3 |
| Water permeability | NPD |
| Permeability to water vapour | Impermeable |
| Air permeability | NPD |
| Noise insulation | NPD |
| Tensile strength | 0.064 N/mm ² |
| Tensile elasticity | 1.311 N/mm ² |
| Compressive strength | 0.099 N/mm ² |
| Compressive elasticity | 1.176 N/mm ² |
| Shear strength | 0.086 N/mm ² |
| Shear module | 2.961 N/mm ² |
| Tension of compression for profiled façade | 238.5 N/mm ² |
| Tension of wrinkle for continuous panel | 56.11 N/mm ² |
| Adhesion value | 1 Kg/cm ² |
| Water absorption | ≥ 95% |
| Operating temperature | from -40°C to +80°C |

CLASSIFICATION AND DIRECT FIELD OF APPLICATION

REFERENCE AND DIRECT FIELD OF APPLICATION

- This classification has been carried out in accordance with clause 8.2 of EN 13501-1:2009

CLASSIFICATION

- The Briarwood Insulated Panels with the 30mm and 80mm insulation core thickness in relation to its **fire reaction behaviour is classified as B**.
- The additional classification in relation to **smoke production is s2**.
- The additional classification in relation to flaming droplets/particles is **d0**.

The format of the reaction to fire classification for construction products except flooring is:

| FIRE BEHAVIOUR | | SMOKE PRODUCTION | | | FLAMING DROPLETS | | |
|----------------|---|------------------|---|---|------------------|---|--|
| B | - | s | 2 | - | d | 0 | |

FIELD OF APPLICATION

This classification is valid for the following end use conditions:

- Equal or more than 30mm thick
- Metal skin thickness from 0.4mm or more
- Cut edges protected or not protected with steel flashings
- With or without joints
- Fixing each 400mm or less
- Core density 40 kg/m3 ±15%

LOADING SPANS

Terminology

Span: The distance between the supports or purlins measured in millimetres.

Single span: The maximum permissible load for panels spanning between **two supports only** (a single span configuration).

Double span: The maximum permissible load for panels spanning across **three supports** (a double span configuration).

Multi span: The permissible load for panels spanning across **four or more supports** (a continuous or multi-span configuration).

KN/M²: The loads are measured in kilonewtons per square metre which indicates the force applied per unit of area of the panel.

Permissible download imposed loads

| SPAN (MM) | SINGLE SPAN (KN/M ²) | DOUBLE SPAN (KN/M ²) | MULTI SPAN (KN/M ²) |
|-----------|----------------------------------|----------------------------------|---------------------------------|
| 1200 | 3.8 | 3.2 | 3.5 |
| 1400 | 3.0 | 2.7 | 3.0 |
| 1600 | 2.4 | 2.2 | 2.5 |
| 1800 | 1.9 | 1.8 | 2.0 |
| 2000 | 1.5 | 1.4 | 1.6 |
| 2200 | 1.2 | 1.1 | 1.3 |
| 2400 | 1.0 | 0.9 | 1.1 |

Permissible wind uplift loads

| SPAN (MM) | SINGLE SPAN (KN/M ²) | DOUBLE SPAN (KN/M ²) | MULTI SPAN (KN/M ²) |
|-----------|----------------------------------|----------------------------------|---------------------------------|
| 1200 | 3.4 | 2.9 | 3.1 |
| 1400 | 2.7 | 2.4 | 2.6 |
| 1600 | 2.2 | 1.9 | 2.2 |
| 1800 | 1.8 | 1.6 | 1.8 |
| 2000 | 1.4 | 1.3 | 1.5 |
| 2200 | 1.1 | 1.0 | 1.2 |
| 2400 | 0.9 | 0.8 | 1.0 |

REFERENCE STANDARDS

FIRE CLASSIFICATIONS

- **BS EN 13501-1:** Fire classification of construction products and building elements
- **EN ISO I 1925-2:** Reaction to fire tests for building products
- **BS EN 13823:** Reaction to fire tests for building products excluding floorings exposed to the thermal attack by a single burning item

TOLERANCES AND CALCULATIONS

- **BS EN 14509:** Factory-made double skin metal faced insulating sandwich panels