SPECIFICATION SHEET

January 2025

PRODUCT REFERENCE

Insulated Roof Panel PIR 80mm

CONTENTS

GENERAL DATA

PRODUCT CODE

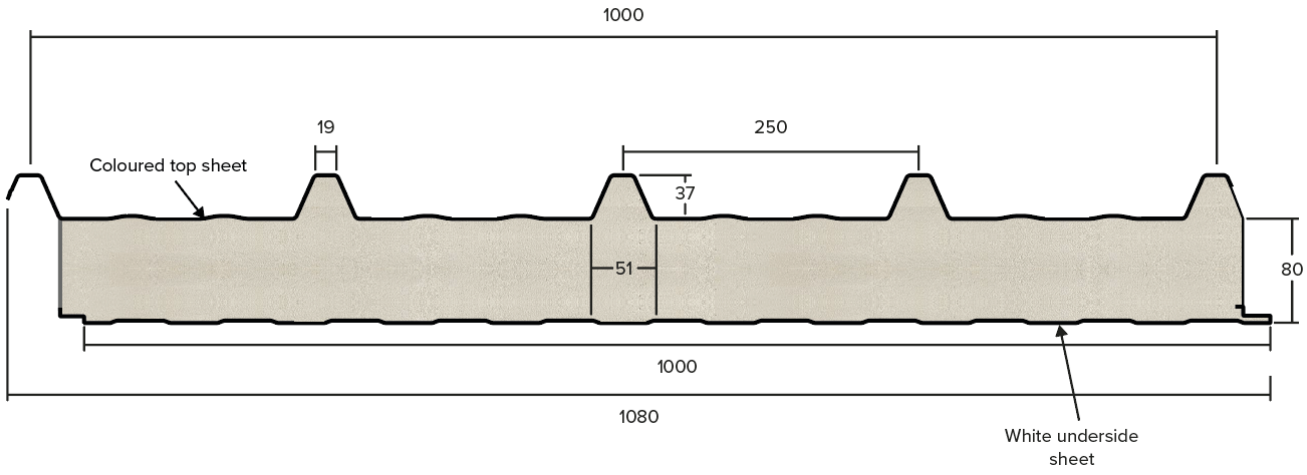
- **Roof Panel:** Insulated Roof Panel PIR 80mm
- **Code:** METPOLINS8003075, METPOLINS8004075, METPOLINS8005075, METPOLINS8006075, METPOLINS8007075

DETAILS OF CLASSIFIED PRODUCT

Nature and end use application

The product **INSULATED ROOF PANEL PIR 80MM** *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	9.32 Kg/m^2
Maximum purlin spaces	2500mm
Cutback	75mm

CHARACTERISTICS

ELEMENT	*THICKNESS*	*REFERENCE STANDARD*
Topside metal facing	0.40mm	EN 14509
Insulation core	80mm	EN 14509
Underside liner	0.40mm	EN 14509

INSULATION TABLE

INSULATION THICKNESS	CORE TYPE	WEIGHT	DENSITY	U-VALUE	RW	THERMAL RESISTANCE R
80mm	Polyisocyanurate PIR	9.32 Kg/m^2	40±5 kg/m3	0.28 W/m^2K	25.0 dB	4.55 m^2K/W

CHARACTERISTICS TABLE

ELEMENT	VALUE
Density (with skin)	40 Kg/m^3
Density (without skin)	36-38 Kg/m^3
Thermal transmittance	0.28 W/m^2K
Thermal conductivity	λ = 0.023 W/mK
Reaction to fire	B-s2,d0
Fire resistance	Broof T2-T3
Water permeability	NPD
Permeability to water vapour	Impermeabile
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/M^2: The loads are measured in kilonewtons per square metre which indicates the force applied per unit of area of the panel.

Permissibile download imposed loads

SPAN (MM)	SINGLE SPAN (KN/M^2)	DOUBLE SPAN (KN/M^2)	MULTI SPAN (KN/M^2)
1200	5.5	4.8	5.2
1400	4.5	4.0	4.3
1600	3.8	3.4	3.7
1800	3.1	2.9	3.1
2000	2.6	2.4	2.7
2200	2.2	2.0	2.3
2400	1.8	1.7	1.9
2600	1.5	1.4	1.6

Permissibile wind uplift loads

SPAN (MM)	SINGLE SPAN (KN/M^2)	DOUBLE SPAN (KN/M^2)	MULTI SPAN (KN/M^2)
1200	4.9	4.3	4.6
1400	4.0	3.5	3.8
1600	3.3	3.0	3.2
1800	2.8	2.5	2.8
2000	2.3	2.1	2.4
2200	1.9	1.8	2.0
2400	1.6	1.5	1.7
2600	1.3	1.2	1.4

REFERENCE STANDARDS

FIRE CLASSIFICATIONS

- **BS EN 13501-1:** Fire classification of construction products and building elements
- **EN ISO I 1925-2:** Reaction to fire rests 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