

LiteSpan PIR Sandwich Panel

Flat & Deep Profiled — Polyisocyanurate (PIR) core

Product description

LiteSpan PIR panels use a rigid **polyisocyanurate** core between galvalume-coated steel skins. This is the **highest thermal performance per millimetre** core — the best R-value of the three — at a mid-range weight.

Applications

- Temperature-controlled & cold rooms
- Laboratories and GMP areas
- Agricultural and industrial buildings
- Food processing areas
- Hospitals and clinics
- Indoor swimming pools
- Prefabricated or modular buildings
- Logistics centres and office buildings

Benefits

- **Fire:** combustible organic core — provides a reaction-to-fire class only. For a **rated fire-resistance** system, specify the Stone Wool core
- **Thermally efficient:** R-values up to 6.52 m²K/W at 150 mm
- **Best insulation:** lowest λ — the thinnest panel for a given R-value · closed-cell, moisture-resistant
- **Durable:** chemically stable, rot-proof, dimensionally consistent
- Fast single-pass envelope: structure, insulation & finished face in one element

Basic technical parameters

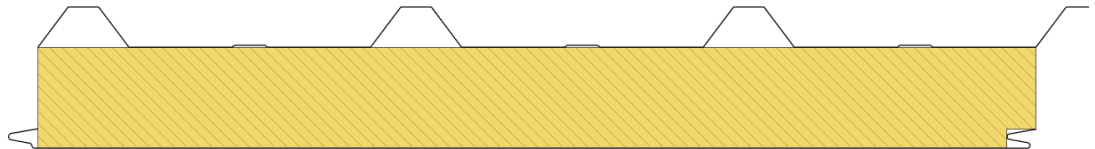
Core thickness (mm)	Panel weight (kg/m ²)	'U' value (W/m ² .K)	'R' value (m ² .K/W)
50	~11.6	0.46	2.17
75	~12.6	0.31	3.26
100	13.6	0.23	4.35
150	~15.6	0.15	6.52

PIR λ is a typical FR-PIR value; weights marked "~" indicative; R-values computed from core λ . Confirm project values & the current PIR fire test with Technopol.

Panel types

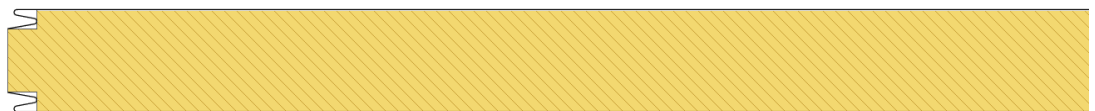
Deep Profiled Roof Panel (DPR)

990 mm cover · IBR ribs @ 330 mm centres · 44 mm crown · smooth / micro-pleated underside



Flat Panel

1145 mm cover · smooth / micro-pleated both faces · tongue-&-groove interlocking side-laps



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System characteristics







- **Steel:** Chromadek or similar skins, range of colours; Z / AZ / ZAM coatings. Skin thickness 0.5 mm minimum.
- **Cover width:** 990 mm (DPR) / 1145 mm (Flat). Panel thickness 50 / 75 / 100 / 150 mm; longer on request.
- **Support & pitch:** steel purlins; bearing width 50 mm minimum; pitch 4° minimum for DPR.
- **Fasteners:** Class 3/4 self-drilling Tek screws with seal, fix-through — three per support (centre of every trough for 990 DPR; three equally spaced for 1145 Flat).
- **Laps & closures:** end-lap 150 mm min; side laps stitched at 500 mm centres; flashings/closures at 500 mm centres.

PIR core properties

Property	Unit	Value	Standard
Density	kg/m ³	~40	—
Compressive strength	kPa	~120–150	EN 826
Thermal conductivity (typical)	W/mK	~0.022–0.024	EN 12667
Reaction to fire	—	class on test (combustible)	—
Max service temp.	°C	~110	—
Water absorption	—	low (closed cell)	—

Colours

Steel skins are available in the following colours:

	Colour name	RAL code
	Dove Grey	7042
	Basalt Grey	7012
	Sandstone Beige	1002
	Signal Brown	8002
	Anthracite Grey	7016
	Frost White	9016

See the **LiteSpan Core Selection Guide** to compare Stone Wool, EPS and PIR cores side by side.