

## LiteSpan EPS Sandwich Panel

Flat & Deep Profiled — FRCel® Fire-Retarded EPS core

### Product description

LiteSpan EPS panels use Technopol's own **FRCel® Fire-Retarded Expanded Polystyrene** core between galvalume-coated steel skins. This is the **lightweight, cost-effective** core — roughly 40% lighter than a mineral-wool panel — and the only SANS-53501-1-classified insulated EPS panel on SA's national register.

### 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:** FRCel® core classified **B-s1,d0** reaction-to-fire (SANS 53501-1). Not a fire-resistance rating — specify Stone Wool where an FR rating is required
- **Thermally efficient:** R-values up to 4.29 m<sup>2</sup>K/W at 150 mm
- **Lightweight:** ~40% lighter than mineral wool — lower dead load & handling · **SANS 54509** type-tested
- **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 <sup>2</sup> )	'U' value (W/m <sup>2</sup> .K)	'R' value (m <sup>2</sup> .K/W)
50	~9.0	0.70	1.43
75	~10.0	0.47	2.14
100	11.1	0.35	2.86
150	~13.0	0.23	4.29

Weights marked “~” are indicative (computed from core density); R-values computed from the declared core λ. Confirm project values 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.

### EPS core properties

Property	Unit	Value	Standard
Density (grade dependent)	kg/m <sup>3</sup>	15–20	—
Compressive strength	kPa	70–110	EN 826
Thermal conductivity (declared)	W/mK	0.03524	SANS 54509 ITT
Panel U-value (125 mm)	W/m <sup>2</sup> K	0.252	SANS 54509 ITT
Reaction to fire	—	B-s1,d0	SANS 53501-1
Max service temp.	°C	~80	—
Water absorption	—	low (closed structure)	—

### 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.