

# Rapid Panel Structures

## INSULATED POLYSTYRENE PANEL GENERAL SPECIFICATIONS

### Dimensions

Width	Length (mm)
Standard 1150	To required length

### Panel Weight (kg/m<sup>3</sup>)

Polystyrene Core	Weight (kg/m <sup>3</sup> )
50 mm	7.84 kg
75 mm	8.3 kg
100 mm	8.75 kg
150 mm	9.64 kg
200 mm	10.55 kg
250mm	11.36 kg



SIPS Panel Plant

### Thermal Resistance R Value at 15 °C

Panel Thickness	R Values(m <sup>2</sup> K/W)
75 mm	2
100 mm	2.6
150 mm	3.9
200 mm	5.2
250 mm	6.5

### Fire Data For EPS Insulating Core (Excluding outer Skin)

- \* Ignition Temp EPS only 230 Deg C
- \* Flash Ignition Temp 365 Deg C
- \* Spontaneous Ignition Temp 421 Deg C
- \* By Nature will retract from Heat Source
- \* Burn Rate 4 - 15 cm/min
- \* Distortion Temp 90 Deg C @ 35 kPa

### Strength (flexibility)

Force Applied to Measure Variances under Pressure over a 4 m Span using 100 mm Insulated Panel

Weight kg	Span m	Variance mm
0	4	0
100	4	5
150	4	7.5
200	4	14



Panel cut to length



Lamination Test

### Panel Thickness and Insulation

Polystyrene Core	Temp °C
50 mm	+10
75 mm	+4
100 mm	+1
150 mm	- 10
200 mm	- 30



Lamination Test



Dispatch

### Suggested Wall Thickness for Cold rooms and Freezer Rooms (Polystyrene Core)

Application	Wall thickness	Temp °C
Cold room	100 mm	1 °C
Standard Freezer	150 mm	-18 °C
Ultra Low Temp	200 mm	-35 °C

### Load Span Table

Maximum allowable loads KN/m  
SPAN IN METERS FOR WALLS

	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
EPSSD								
50	0,76	0,42	0,25					
75	1,34	0,79	0,49	0,32				
100	1,96	1,20	0,78	0,52	0,37	0,26		
150	3,25	1,84	1,17	0,81	0,60	0,46	0,36	0,29
200	4,36	2,45	1,57	1,09	0,80	0,61	0,48	0,39

SPAN IN METERS FOR CEILINGS

	3.0	4.0	5.0	6.0	7.0	8.0	9.0	10.0
EPSSD								
50	0,65	0,32						
75	1,24	0,68	0,39					
100	1,85	1,09	0,67	0,41	0,26			
150	3,14	1,73	1,07	0,71	0,49	0,35	0,25	
200	4,24	2,33	1,45	0,97	0,68	0,49	0,37	0,27

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