Rapid Panel Structures

INSULATED POLYURETHANE PANEL GENERAL SPECIFICATIONS

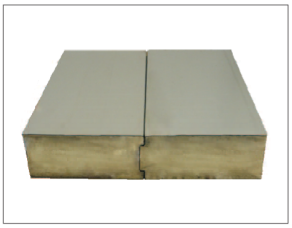
Dimensions

Width	Length (mm)
Standard 1165 Maximum 1171	To design requirements maximum 4000

Panel Weight (kg/m²)

Polyurethane Core	
40mm	11.3kg
50mm	11.6 kg
60mm	12 kg
80mm	16 kg
100mm	20 kg

`CAMLOCK`



Male/Female Joint

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

Application	Wall thickness	Temperature
Cold room	60 mm	1 °C
Standard Freezer	80 mm	-18 °C
Ultra Low Temp	100 mm	-35 °C

Panel Wall

Panel Thickness scale for Maximum Temp Requirements

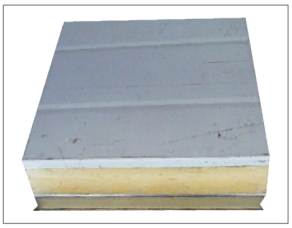
Polyurethane Core	Temp °C
40 mm	+10
50 mm	Economy Coldroom
60 mm	+1
80 mm	- 10
100 mm	Ultra Low (Blast Freezer)

Polyurethane Coldroom

MATERIAL Options for POLYURETHANE Panels

EXTERIOR FACING
1. Galvanized Steel
2. Chromodek / diff colours on request
3. Aluminium Mill Finish

INTERIOR FACING
1. Chromodek / diff colours on request
2. Galvanized flat
3. Nutec Cladit (fibre cement board)
4. Masonite
5. Gypsum Board
6. Plywood
7. Stainless Steel
8. Manganese Silica Board



Chromodek & Stainless Steel Skins

Thermal Resistance R Value at 15 °C

Panel Thickness	R Values(m² K/W)
30 mm	1.36
40 mm	1.82
50 mm	2.27
60 mm	2.73

Thermal Conductivity `K` Factor

Panel Thickness	K W/M² Deg. C
20 mm	0.023
25 mm	0.023
40 mm	0.023
50 mm	0.023
75 mm	0.023

Thermal Transmittance `U` Value

Panel Thickness	U W/M Sq Deg. C
20 mm	.981
25 mm	.877
40 mm	.529
50 mm	.431
75 mm	.293

CAMLOCK

Unique to our Polyurethane Panel is the internal `Camlock` system designed to ensure an absolutely tight, flush and secure joints between panels.
Having the Camlock system also allows the flexibility of easily dismantling a panel installation. It also adds to overall structural strength of an installation, being stronger than the conventional rivet system.

Fire and Building

Polyurethane is a therma set material that does not support combustion, and will only char under direct flame, thus having a CLASS 1 Fire rating.

After curing it is inert and not harmful.

Installation rate equates to:
10 min per meter squared of wall.
8 min per m2 for roofing.

Building Comparison:
To achieve a U value of 0.3 (w/m2K)

A. 36.5 cm Brick and Mortar wall plus plaster on both sides and 8 cm of external insulation.
Total.....465 mm Wall Thickness
Or
B. An 80 mm Insulated Polyurethane Panel.

(Information Supplied by Industrial Urethanes)