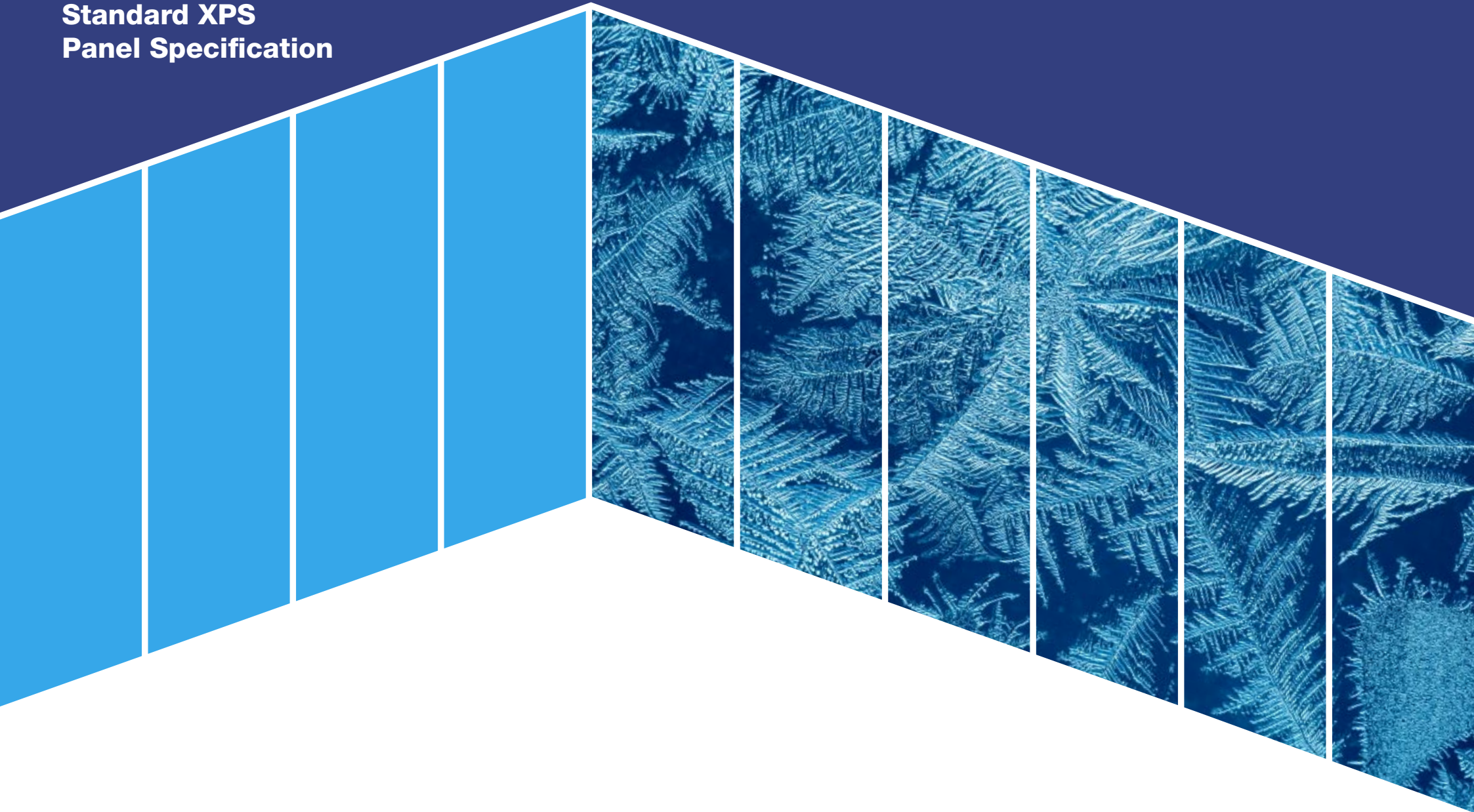


# Standard XPS Panel Specification



**Isoclad** *XPS*

The highly insulated and strong panel system



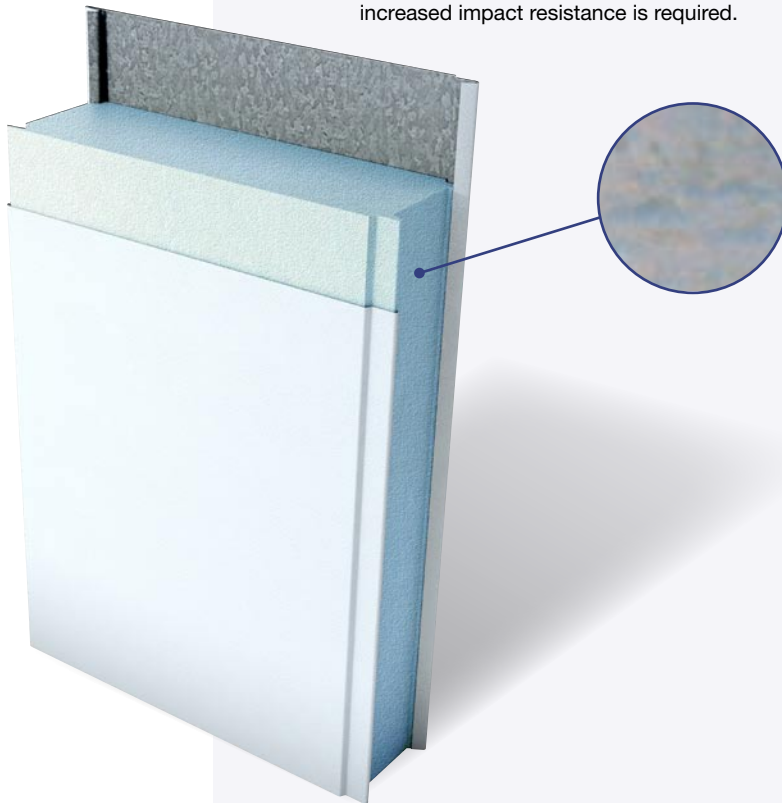
# Isoclad XPS

## Standard Panel Specification

Isoclad manufacture a range of insulated and fire-resisting panels which can be used for wall systems, horizontally or vertically and ceilings. All panels are manufactured to an ISO 9001:2008 quality assurance system.

Extruded polystyrene is based on the same raw materials as expanded polystyrene but due to its manufacturing method, it has superior strength and higher humidity resistance.

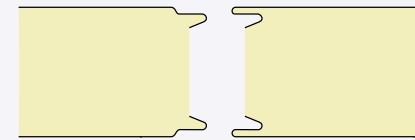
Styrofoam panels are ideal for blast freezers and areas with high moisture applications, or where increased impact resistance is required.



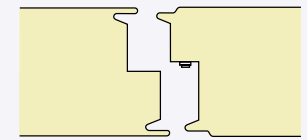
### Joint Detail

Roll formed to create the male/female inter-locking joint.

#### Intaloc



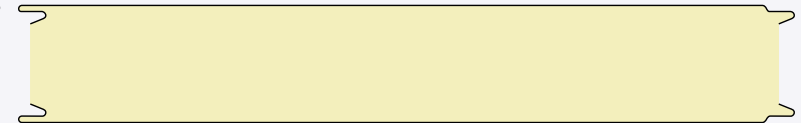
#### Secret Fix



### Profiles (NOT TO SCALE)

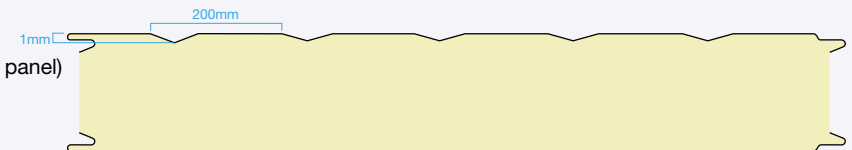
#### Flat

Laminated panel produces a much flatter surface than other manufacturing methods, but 'optical' flatness is not assured; some shadowing might be evident in certain lighting situations.



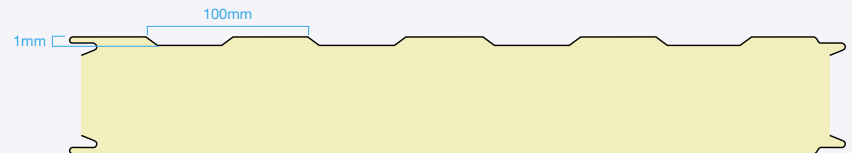
#### V-Rib

(Pitch 200mm - 5 per panel)



#### Castellation

(Pitch 100mm)



#### Micro rib

(Pitch 30mm - 1 side only)



## Panel Weights (kg/m<sup>2</sup>)

| Thickness  | 40   | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 225  | 250  |
|------------|------|------|------|------|------|------|------|------|------|------|
| <b>Kgs</b> | 10.1 | 10.3 | 10.7 | 11.1 | 11.5 | 11.9 | 12.3 | 12.7 | 13.1 | 13.5 |

Panel Weights in kg/m<sup>2</sup> based on 0.5 thickness steel

Add 1.1 kg/m<sup>2</sup> for ceiling or 0.7 panels

## Thermal Properties

| Thermal Conductivity W/m <sup>2</sup> C | 50   | 75   | 100  | 125  | 150  | 175  | 200  | 225  | 250  | Recommended Minimum Thickness for U Values 0.35 W/m <sup>2</sup> |
|---|------|------|------|------|------|------|------|------|------|--|
| <b>0.024</b>                            | 0.44 | 0.30 | 0.23 | 0.19 | 0.16 | 0.13 | 0.12 | 0.09 | 0.08 | 75mm   |

## External/Internal facing finishes

We offer a complete range of facings available in 0.5mm and 0.7mm hot dipped galvanized substrate with the following finishes.

| WFSL   | HP200  | PVF2  | HPS ULTRA   | Polyester   | Primer  |
|--|--|---|---|---|---|
| 120 micron thick White Food Safe Laminate for internal hygienic area | Colour coat leathergrain, A 200 micron PVC paint system with leathergrain emboss, available in various colours | Colour coat smooth 27 micron poly vinyl di fluoride stoved fluorocarbon, available in various colours | Colour coat Scintilla, organic coated 200 microns Scintilla, emboss of 40 microns. Available in various colours | Standard white 25 micron painting system consisting of primer and polyester finish. Other colours upon request. | 7 to 12 micron coat of epoxy or polyester paint |

## Structural Load Spans

| Core       | Wall Spans (m)<br>Max allowable loads KN/m <sup>2</sup> |     |     |      |      |      |      |      | Max Span     | Ceiling/Roof (m)<br>Max allowable loads KN/m <sup>2</sup> |      |      |      |      |      |      |      | Max Span     |
|------------|---|-----|-----|------|------|------|------|------|--------------|---|------|------|------|------|------|------|------|--------------|
|            | 3.0   | 4.0 | 5.0 | 6.0  | 7.0  | 8.0  | 9.0  | 10.0 |              | 3.0   | 4.0  | 5.0  | 6.0  | 7.0  | 8.0  | 9.0  | 10.0 |              |
| <b>50</b>  | 1.2   | 0.6 | 0.3 | 0.2  |      |      |      |      | <b>5.15</b>  | 0.6   |      |      |      |      |      |      |      | <b>3.67</b>  |
| <b>75</b>  | 2.4   | 1.2 | 0.7 | 0.4  | 0.3  |      |      |      | <b>6.78</b>  | 1.8   | 0.7  | 0.3  |      |      |      |      |      | <b>5.16</b>  |
| <b>100</b> | 3.9   | 2.0 | 1.2 | 0.7  | 0.5  | 0.3  |      |      | <b>8.24</b>  | 3.2   | 1.5  | 0.8  | 0.4  |      |      |      |      | <b>6.48</b>  |
| <b>150</b> | 7.1   | 3.9 | 2.3 | 1.5  | 1.0  | 0.7  | 0.5  | 0.4  | <b>10.83</b> | 6.5   | 3.4  | 1.9  | 1.1  | 0.7  | 0.4  |      |      | <b>8.85</b>  |
| <b>200</b> | 10.77   | 6.8 | 3.8 | 2.46 | 1.67 | 1.18 | 0.86 | 0.64 | <b>13.15</b> | 10.09   | 5.65 | 3.36 | 2.08 | 1.33 | 0.87 | 0.57 | 0.37 | <b>10.90</b> |

## Maintenance

Walls can be washed down with fresh water from a hose or bucket. A solution of fresh water and Tepol or non aggressive detergent, which contains dilute ammonia, may be used to remove heavy deposits from walls, followed by a fresh water rinse.

Water Temperature should not exceed 60°C with a maximum pressure of 1000lbs per square inch.

Stubborn oil or grease stains can be easily removed with white spirit on a soft cloth, followed by an immediate fresh water rinse.

Solvents, cleaners containing abrasives and cleaners in strong concentrations should not be used. Over-cleaning or scrubbing can do more harm than good.

To allow regular washing of panels, it is important that both the design and maintenance of the panel system should prevent moisture collecting in crevices and joints. This is particularly important at the bottom of wall panels, where pollutants from cleaning solutions or from floor soil can cause corrosion problems. This can be achieved by a design which ensure that the edges are folded back and by sealing the edges with a neutral curing silicone sealant.

**Disclaimer**

While Isoclad can give advice regarding suitability for end use it remains the responsibility of the client/architect/specifier to ensure the panels are selected and installed according to the latest regulations and fire safety requirements and that they are suitable for their intended use.

ISO/XPS/spec/01/13

# Isoclad XPS

The panel core for high strength non fire rated environments

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