



# Technical Specification

**System Type: Manufacturer:** External Insulated Cladding for the Off-Site Construction Industry.  
**Nominal Thickness: Maximum height:** Excel Laminating Ltd  
31mm  
3600mm

## Properties

### Fire resistance (minutes):

60 minutes - with OSB or Weather Defence sheathing and 15mm Mega Excel boarding inside. The assembled system has been tested at Exova for fire resistance in accordance with BS EN 1364 – 1 : 2015 . It achieved a fire rating of 60 minutes in both cases of fire exposed from outside to inside (using Weather Defence sheathing) and also inside to outside (using OSB sheathing) in two separate tests.

### Fire test code references

**External Fire Exposure:** BMT/FEP/F/15246 10/11/2015  
**Internal Fire Exposure:** BMT/FEP/F/15247 13/11/2015

20dB for the Panel; 50dB for the assembled system.

### Sound Reduction Rw:

### BS 5234 duty grade: Thermal Insulation:

Severe  
R value is 0.90 m<sup>2</sup>K/W. Typical system  
U value is 0.28 W/m<sup>2</sup>K using 100mm mineral wool insulation and 0.21 W/m<sup>2</sup>K using 140mm mineral wool insulation.

### Framing installation Studs, Top and Bottom rails:

Single frame of CLS Timber studs can be 120x38mm or 140x38mm at 400 or 600 mm centres as appropriate factory manufactured frames by others.

30mm Eco Polyfoam XPS + 0.50mm or 0.70mm Pre-coated Steel

### Panel Specification: Bracing type and fixings:

Mid height noggins are recommended. The product is secretly fixed to the studs with 38mm self tapping wafer head zinc plated screws, at 300mm centres down the tongued vertical edge. A silicon bead line is then also added down the full length of tongued vertical edge. It is fixed to the centre studs using 6 mm zig zag beads of Solvent free grip adhesive when fixing Polyfoam directly to another substrate (limitations apply). There is a fixed angle trim top and bottom. It is advised to drill drainage into the bottom trim at 600mm centres. Panels can be laid vertically or horizontally. When cutting apertures in panels for windows and doors, leave a small gap (approx 5mm) around the aperture behind the trim to allow for thermal expansion in the product during hot weather

### Distance between frames:

No maximum limit

## Plasterboard linings

### Inner leaf:

One layer of 15mm GTEC MegaExcel wallboard.

### Sheathing:

One layer of 11mm OSB 3 or 12.5mm GTEC Weather Defence board.

## Plasterboard fixings:

### First Layer Size:

50mm GTEC Drywall Hi thread screws all at 300mm centres.

### Cavity Insulation: Density:

Glass mineral wool type insulation.

### Thickness:

10 kg/m<sup>3</sup> minimum.

### Insulation fixing: Acoustic/

120mm or 140mm depending on the stud size and required U value.

### Fire Protection:

By way of friction inside the stud cavities.

Apply 6mm continuous beads of Intumescent Sealant around the perimeter in order to make the panel air tight.

## Finishes

### Type of finish - internal:

GTEC Taping and jointing system or Excel PVC Pre-decorated MegaExcel boards with a 2 Part PVC H-Section.