

## **INSTABUILD** Advanced Floor & Wall Systems for Conservatories

### Technical Information

#### **Footings**

Concrete pads are required at the jacking points. Each pad should be 450mm square and a minimum of 450mm deep on firm subsoils. On clay, sand or peat subsoils there should be an additional layer of well compacted hard-core to a depth of 200mm below the concrete.

Pad spacing for D/W conservatories:

On the length – 2 metres max. On the depth – 2.5 metres max.

Pad spacing for F/H conservatories:

On the length – 2.5 metres max. On the depth – 3 metres max.

A pad layout diagram is supplied with each order.

#### **Material Specification**

Outer Cill (D/W): 65mm x 100mm x 7mm RSA Galvanized.

Ring Beam: 80 x 80 x 3mm SHS.

Floor Joists: (up to 3 metres deep) 60 x 40 x 3mm RHS. (over 3 metres deep) 80 x 40 x 3mm RHS.

Flooring: V313 M/R Chipboard 18mm thick.

Under floor insulation: Jablite polystyrene 50mm thick.

Bases can be manufactured to suit any shape or size of conservatory.

Instabuild conservatory bases have been designed to British Standards and Building regulations. Calculations have been made using BS 6399 (Part 1 1984). Loading for the roof and floors, which are 0.7kN/sq.m. snow loading and 1.5kN/sq.m. (or 1.4kN point load on a 300mm<sup>2</sup>) floor loading from table 5: - 'Residential Occupancy Class Type 1'. The member design has been made in accordance with BS 449 with the additional requirement that side rail deflection should not exceed 2.0mm.

ELEMENTAL U-VALUE CALCULATION  
Based on the Calculation Method for Elements Other than Ground Floors  
Detailed in Appendix B of Approved Document L 2001 Edition

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Calculation prepared on the:                    OWENS CORNING  
   ARCHITECTURAL CALCULATION SUITE, Version 5.0

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Owens Corning Alcopor

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Project:    Slip Brick System – 180mm C Section

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This is a wall construction

There are 3 layers

	Thickness mm
1. External Surface Resistance	-
2. Brick (outer leaf)	15.0
3. Polyfoam Plus Laminating Board	16.0
4. Cape Pyrok	8.0
5. Polyfoam Plus Floorboard (220)	70.0
6. Unventilated Airspace	110.0
7. Plasterboard	10.0
8. Internal Surface Resistance	-

Construction details:

Layer 5 is bridged with Steel Section, proportion 0.002, thickness 70.0mm  
Layer 5 has a correction for air gaps at Level 1 but no correction for mechanical fasteners.

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Upper resistance limit of Construction = 3.521 m<sup>2</sup>K/W  
Lower resistance limit of Construction = 2.289 m<sup>2</sup>K/W  
Correction for air gaps and fasteners = 0.002 W/m<sup>2</sup>K (=0%) (ignored)  
U-value of Construction = 0.34 W/m<sup>2</sup>K

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NB For the purposes of comparison the U-value using the proportional area calculation method + 0.28 W/m<sup>2</sup>K

NB Calculation performed with a greater number of decimal places than shown, so rounding errors may be apparent.