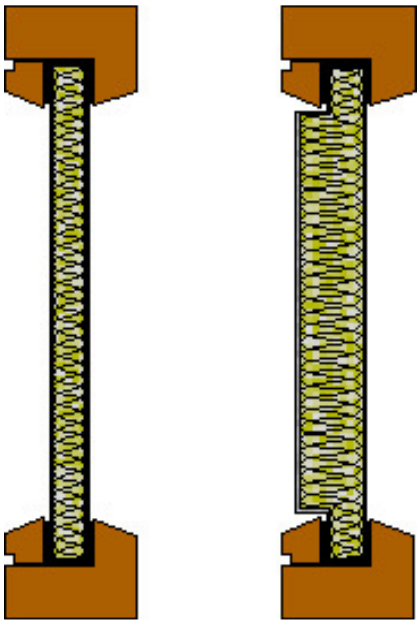
Siderise INFILL PANELS

DATA SHEET 8350

Introduction



Infill Panels

Siderise Infill Panels are a decorative and robust composite panel for incorporating in glazing systems. They provide a means of thermal insulation as window, door and curtain walling infills for both new build and refurbishment work.

The panels are custom designed to meet the thermal or sound performance criteria.

Siderise Infill Panels are fully bonded composite panels comprising an insulation core faced both sides with a suitable facing material.

The facing materials are pressure laminated to the insulation core utilising the latest high strength structural bonding techniques.

Siderise Infill Panels incorporate a wide variety of thermal insulation cores, typically these are Rockfibre Lamella, Polyurethane, Extruded Polystyrene and Phenolic Foam. Other types of insulation cores can be utilised and if required please contact our Technical Section.

Siderise Infill Panels utilise a comprehensive range of facing materials. Typical facing materials employed are plastisol coated steel, polyester powder coated steel or aluminium, Rockclad, high pressure laminates, glass reinforced plastics and cements, calcium silicates, fibre reinforced cements and timber based materials. Other facing materials are available and if required please contact our Technical section.

Panel Construction

Siderise infill panels are produced with a variety of edge details to suit design requirements. Some typical examples from straight edge to stepped edge are illustrated in the diagrams at the rear of the data sheet.

It is normal practice to produce a 'balanced' panel to avoid potential bowing or delamination, but when using Rockfibre lamella as the insulation core this is not necessary due to its ability to accommodate differential movement. This feature increases the options available to the specifier.

Fire Performance

Siderise Infill Panels fire performance is also dependent on the choice of both facing materials and insulation cores.

Panels can be provided with insulation cores that are non combustible in accordance with BS476 part 4: 1970 (1984) and facing materials that are rated Class 'O' in accordance with the Building Regulations. However not all insulation cores and facing materials meet this performance.

For information on the fire performance of individual panel constructions please contact our Technical Section.

Thermal Performance

Siderise Infill Panels thermal performance is dependent on the choice of both facing materials and insulation core.

See Thermal Performance Tables for thermal conductivity of some typical insulation cores and facing materials together with Thermal Transmittance ('U' value) figures for typical composite panel constructions.

Further information regarding thermal values for other panel constructions are available on request from our Technical Section.

Dimensions

Siderise Infill Panels are limited to the maximum dimensions available of the facing materials.

Overall panel thickness is dictated by the necessary requirements and can be varied in 1mm increments.

Panels are custom made to suit the required dimensions. It should be noted however that not withstanding the facing material dimensions the maximum panel size available is 3000mm x 1500mm.

Selection of Completed Local Authority Contracts

Local Authority	Location
Wandsworth BC	Sherfield Gardens, London SW15
Wandsworth BC	Ibsley Gardens, London SW15
Islington BC	Tremlett Grove, London N19
Rushmoor BC	Totland Estate, Farnborough, Hants
Rushmoor BC	Sandy Hill Estate, Farnham, Surrey
Tower Hamlets BC	Jesseline Court, St Stephens Rd, London E3
Hackney BC	Wyke Estate, Barnabas Rd, London E9
Kensington & Chelsea	Appleford House, Appleford Rd, London W10
Kingston Upon Thames	Dale Court, York Rd, Kingston Upon Thames Surrey
Greenwich BC	Gilbourne Road & Upton Road, London SE18
Enfield BC	Alma Road Estate, Alma Road, Brimsdown, Enfield EN3

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Table 1. Components

Material thickness	Thermal Conductivity
Phenolic Foam	0.021 W/mK
Polyurethane	0.023 W/mK
Extruded Polystyrene	0.027 W/mK
Rockfibre Lamella	0.040 W/mK
High Pressure Laminates	0.300 W/mK
Rockpanel Colours	0.350 W/mK
Steel or Aluminium	0.000 W/mK

Table 2. Example Panels

Examples of Panel Constructions with Associated Thermal Performance	'U' Values against Specific Panel Thickness' (W/m^2K)		Panel Thickness' against specific 'U' values (mm)	
	24mm O/A	28mm O/A	0.45 W/m^2K	0.35 W/m^2K
0.7mm Steel / Phenolic Foam / 0.7mm Steel	0.81	0.71	45mm	58mm
0.7mm Steel / Extruded Polystyrene / 0.7mm Steel	1.01	0.87	57mm	74mm
3mm H P Laminate / Polyurethane / 3mm H P Laminate	1.02	0.86	53mm	66mm
3mm H P Laminate / Extruded Polystyrene / 3mm H P Laminate	1.15	0.99	61mm	78mm
6mm Rockpanel / Extruded Polystyrene / 6mm Rockpanel	1.52	1.24	66mm	83mm
6mm Rockpanel / Polyurethane / 6mm Rockpanel	1.36	1.10	58mm	73mm
6mm Rockpanel / Rockfibre Lamella / 6mm Rockpanel	1.94	1.63	92mm	118mm

Edge Details

Straight Edge

Extended Facing Edge

Stepped Edge with Metal Trim

Stepped Edge

Folded Metal Straight Edge

Folded Metal Stepped Edge

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