Building Products Limited

Residential SIP Panel

11mm / 11mm OSB Facings

PANEL DATA

Cover Width
1220mm

Available Lengths
Standard Panel Lengths 2180, 2440, 2700, 3000,mm

DIMENSIONS & WEIGHT

Panel Thickness (mm)	97	122	147	172	197
Internal OSB/3 Thickness (mm)	11	11	11	11	11
Foam Core Thickness (mm)	75	100	125	150	175
External OSB/3 Thickness (mm)	11	11	11	11	11
Weight (kg/m2)	15.05	16.02	16.95	17.88	18.81

PRODUCT TOLERANCES

Length	–3mm	+3mm
Width	–3mm	+3mm
Thickness	–3mm	+3mm
Squareness	maximum 2mm variance	

PANEL CORE

A closed cell Polyurethane rigid foam system with zero Ozone Depletion Potential (ODP) s upplied by BASF Polyurethanes Europe.
The PUR core is CFC and HCFC free providing a < 5 value for GWP, as specified by various regulatory bodies.

PANEL FACINGS

The Residential SIPs panel comprises of BBA Approved 11mm Internal and External Oriented Strand Board (OSB) g rade 3 facings. OSB/3 has a thermal conductivity valueλ of 0.13 W/mK.
Manufactured to specification EN 13986 and EN 300:2006, OSB/3 comprises of strands of softwood bonded together using a formaldehyde free synthetic resin.
The OSB boards are responsibly sourced and comply to FSC and PEFC chain of custody requirements.Further information and Certification can be obtained on request.

THERMAL PERFORMANCE

Panel Thickness (mm)	97	122	147	172	197
Thermal transmittance (U-Value) W/m^{2}K	0.28	0.21	0.17	0.15	0.13

Calculated using the method required by the Building Regulations Part L2 (England & Wales) and Building Standards Part J (Scotland). Also calculated in accordance with BS EN ISO 6946:1997 and BRE report (BR443:2006)

Foam Core Thickness (mm)	70 to 80	≥80 to <120	≥120
Declared Thermal Conductivity λ_D (W/mK)	0.030	0.029	0.028

FIRE

Panel Internal and External OSB and CPB facings have Class 3 surface spread of flame to BS476: Part 7: 1987. SIPs are used as part of a through-wall build up they pass the requirements of BS476 Part21 fire resistance of load bearing walls and have achieved up to 75 minutes fire rating.
Non-Load bearing walls can achieve up to a 90 minute fire rating (BS476 Part 22:1987).

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ACOUSTIC

SIPs BBA certificate, Section 12 – Resistance to Airborne Sound.

STRUCTURAL

Loading Capacity Walls

SIPs 122mm Wall panel. The permissible design load values for the effective span of the panels basedon the results of tests undertaken and analysed in accordance with BS5268-2:2002.

11mm OSB Sheathing	*Span of Panel (m)*						
	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Load at Max. deflection of span/200 (kNm-2)	5.90	3.48	1.88	1.02	0.60	0.37	0.24
Load at Max. deflection of span/333 (kNm-2)	4.08	2.09	1.21	0.76	0.51	0.36	0.24

Loading Capacity Roofs

SIPs 172mm Roof panel. The permissible design load values for the effective span of the panels basedon the results of tests undertaken and analysed in accordance with BS5268-2:2002.

11mm OSB Sheathing	*Span of Panel (m)*						
	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Load at Max. deflection of span/200 (kNm-2)	14.00	7.20	3.89	2.10	1.23	0.77	0.50
Load at Max. deflection of span/333 (kNm-2)	8.44	4.32	2.50	1.57	1.05	0.74	0.50

QUALITY & DURABILITY

SIPs are manufactured from the highest quality materials, using state of the art production equipment to rigorous quality control standards, complying with ISO9001:2008 standard, ensuring long-term reliability, and service life.
The panels will have comparable durability to that of OSB/3 to BS EN 300 : 2006, therefore, provided the installation remains weather tight and damp-proof; a life of at least 60 years may be expected. The long lifeexpectancy of our product will reduce energy consumption of a building over its' lifespan.

GUARANTEES & WARRANTIES

Warranties for SIPs construction are available from companies that offer warranty schemes and the majority of lenders are able to offer mortgages on SIPs houses.

PACKING

SIPs panels are stacked horizontally and the pack is wrapped in polythene.
The number of panels in each pack depends on panel length and weight. Typical pack height is 1100mm.

Panel Thickness (mm)	97	122	147	172	197
No. Panels/pack (max)	10	8	7	6	5

JOINTING

Materials used to join panels should be selected to meet the structural requirements of the construction and be approved by the projects' Structural Engineer. Standard SIP panel splines provide low air leakage and enhance thermal performance. Solid timber splines should be responsibly sourced and the suppliers must provide evidence of its sustainability credentials through FSC / PEFC certification.

DELIVERY

All deliveries are by road transport to project site. Off loading & storage is the responsibility of the customer.

SITE PROCEDURES

Panel care information and indicative drawings are available.