

# U-VALUE CALCULATOR REPORT

Property Reference	21124	Issued on Date	20/12/2021
Assessment Reference		Prop Type Ref	u-values
Project	Re-Purposed PIR Insulation		
Calculation Type	Conversion (As Designed)		

SAP Rating		DER		TER	
Environmental		% DER<TER			
CO <sub>2</sub> Emissions (t/year)		DFEE		TFEE	
General Requirements Compliance		% DFEE<TFEE			

Assessor Details	Mrs. Susan Fox, SF Energy Limited, Tel: 07825 631518, suzi@sfenergy.co.uk	Assessor ID	C358-0001
Client	MAC Architects, M151		

## Building Elements

### Wall Timber Clad Wall column B - 140mm Repurposed PIR

#### Wall Type: Standard Wall

Layer	Description	Thickness (mm)	Conductivity (W/m <sup>2</sup> K)	Resistance (m <sup>2</sup> K/W)	Fraction (%)
	Ext surface			0.2900	
Layer 1	<b>Timber Cladding</b>				
	Main construction	22	0.1800	0.0000	100.00
Layer 2	<b>horizontal battens</b>				
	Main construction	38	0.0000	0.0000	87.50
	Main construction	38	0.1300	0.0000	12.50
	Corrections - Cavity Ventilated, Emissivity: Low Emissivity (BR443)				
Layer 3	<b>vertical battens</b>				
	Main construction	25	0.0000	0.0000	91.67
	Main construction	25	0.1300	0.0000	8.33
	Corrections - Cavity Ventilated, Emissivity: Low Emissivity (BR443)				
Layer 4	<b>Proctor Frameshield 100</b>				
	Main construction	0.5	0.0000	0.0000	100.00
Layer 5	<b>Orientated Strand Board</b>				
	Main construction	9	0.1300	0.0692	100.00
Layer 6	<b>KR Cladding Repurposed PIR / studs</b>				
	Main construction	140	0.0310	4.5161	85.00
	Main construction	140	0.1300	1.0769	15.00
	Corrections - Air Gap: Level 1, Fasteners: None or plastic				
Layer 7	<b>airspace / studs</b>				
	Main construction	5	0.0455	0.1100	85.00
	Main construction	5	0.1300	0.0385	15.00
	Corrections - Cavity Unventilated, Emissivity: Normal				
Layer 8	<b>Reflectatherm</b>				
	Main construction	0.5	0.0000	0.0000	100.00
Layer 9	<b>service void</b>				
	Main construction	35	0.0449	0.7800	92.17
	Main construction	35	0.1300	0.2692	7.83
	Corrections - Cavity Unventilated, Emissivity: Normal				
Layer 10	<b>Plasterboard, standard</b>				
	Main construction	12.5	0.2100	0.0595	100.00
	Int surface			0.1300	

