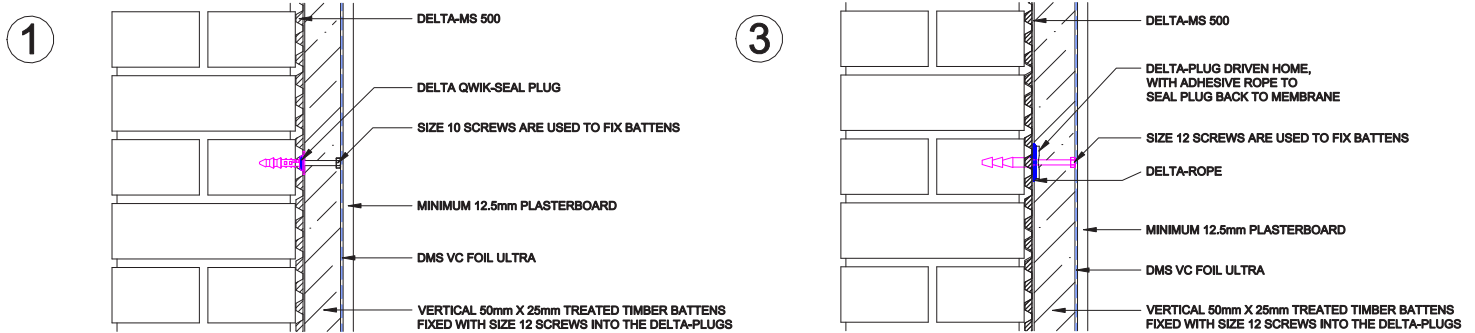


# U-Value Calculations: 50mm PIR



**Element type: Basement Wall – Delta Membranes**

Calculation Method: BS EN ISO 6946

Drawing Reference: DW-506-1

**U-Value Calculation: 50mm PIR**

Layer	d (mm)	layer	bridge	Fraction	R layer	R bridge	Description
					0.130		Rsi
1	12.5	0.210			0.060		Plasterboard
2							Protect VC Foil Ultra
3	50	0.022	0.120	0.150	2.273	0.417	PIR insulation / timber studs
4	0.6	R-value			0.120		Delta MS-500
5	220	0.770			0.286		Solid brickwork
					<u>0.040</u>		Rse
	<u>283 mm</u>	(total wall thickness)			<u>2.908</u>		

Total resistance: Upper limit: 2.299 Lower limit: 1.998 Ratio: 1.151 Average: 2.149 m<sup>2</sup>K/W

U-value (uncorrected) 0.4654

### U-value corrections

Air gaps in layer 3 U = 0.0061 (Level 1)

Total U 0.0061

U-value (corrected) 0.472

**U-value (rounded) 0.47 W/m<sup>2</sup>K**