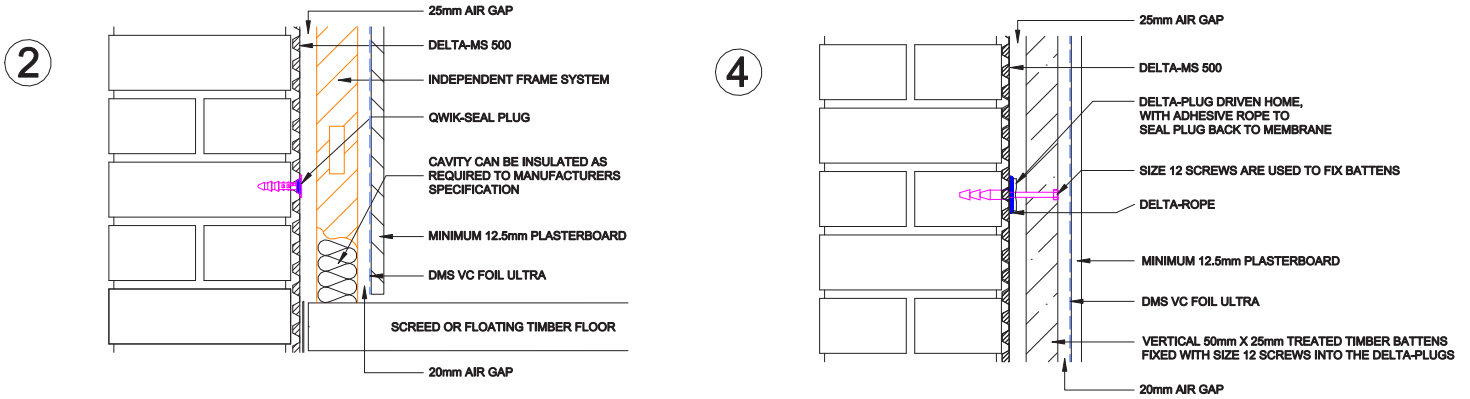


# U-Value Calculation: 100mm PIR with TF InterFoil



Element type: Basement Wall – Delta Membranes

Drawing Reference: DW-507-1

## U-Value Calculation: 100mm PIR with TF InterFoil

Layer	d (mm)	layer	bridge	Fraction	R layer	R bridge	Description
					0.130		Rsi
1	12.5		0.210		0.060		Plasterboard
2	20	R-value	0.120	0.0800	0.780	0.167	20mm x 25mm counterbatten
3							Protect VC Foil Ultra
4	100		0.120	0.150	4.545	0.833	PIR insulation / timber studs
5							Protect TF Interfoil
6	25	R-value	0.120	0.150	0.770	0.208	25mm cavity unventilated
low-E							
7	0.6	R-value			0.120		Delta MS-500
8	220				0.286		Solid brickwork
					0.040		Rse
	<u>378 mm</u> (total wall thickness)					<u>6.731</u>	

Total resistance: Upper limit: 5.508 Lower limit: 4.511 Ratio: 1.221 Average: 5.009 m<sup>2</sup>K/W

U-value (uncorrected) 0.1996

### U-value corrections

Air gaps in layer 4 U = 0.0046 (Level 1)

Total U 0.0046

U-value (corrected) 0.204

U-value (rounded) 0.20 W/m<sup>2</sup>K