225 TF WALL – CELLULOSE INSULATION (0.039)

U-value calculation
by BRE U-value Calculator version 2.04a

Element type: Wall - Timber framed - insulation between studs
Calculation Method: I.S. EN ISO 6946

Dunworth Wall

Layer	d (mm)	λ layer	λ bridge	Fraction	R layer	R bridge	Description
					0.130		Rsi
1	12.5	0.180			0.069		Plasterboard
2	50	R-value[1]	0.130	0.0800	0.780	0.385	Cavity unventilated (low-e)
3							Protect VC Foil Ultra
4	225	0.039	0.130	0.150	5.769	1.731	Cellulose / Studs
5	13	0.130			0.100		Plywood sheathing
6							Protect Thermo TF200
7	50	R-value[2]			0.770		Cavity unventilated (low-e)
8	100	1.150			0.087		Concrete block (dense)
exposed							
9	19	0.570			0.033		Gypsum plaster (1300 kg/m³)
					0.040		Rse
	470 mm (total wall thickness)				7.779		

[1]Specified thermal resistance
[2]Specified thermal resistance

Total resistance: Upper limit: 6.657 Lower limit: 6.224 Ratio: 1.070 Average: 6.440 m²K/W

U-value (uncorrected) 0.155

U-value corrections
Air gaps in layer 4 ΔU = 0.006 (Level 1)

Total ΔU 0.006

U-value (corrected) 0.161
U-value (rounded) 0.16 W/m²K

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