

U-value calculation

by BRE U-value Calculator version 2.04d

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Filename: 225mm Standard U Value SWIP IWI System.uva (File saved: 28 Mar 2019 15:24)

Element type: Wall - Masonry solid wall with internal insulation

Calculation Method: BS EN ISO 6946

Example Wall System

<u>Layer</u>	<u>d (mm)</u>	<u>λ layer</u>	<u>λ bridge</u>	<u>Fraction</u>	<u>Density</u>	<u>Sp. heat</u>	<u>R layer</u>	<u>R bridge</u>	<u>Description</u>	
1	12.5	0.210			700	1000	0.130 0.060		Rsi Plasterboard	
(standard wallboard)										
2									Vapour	
control layer										
3	15	0.032	0.130	0.125			0.469	0.115		
SWIP(95mm)/15mm OSB(on SWIP)										
4	80	0.032	0.033	0.125			2.500	2.424		
SWIP(95mm)/SWIP										
5	13	0.570			1300	1000	0.023		Gypsum	
plaster (1300 kg/m ³)										
6	255	0.770			1700	800	0.331		Brick outer	
leaf										
							<u>0.040</u>		Rse	
							3.552			
	<u>376 mm</u> (total wall thickness)									

Total resistance: Upper limit: 3.492 Lower limit: 3.413 Ratio: 1.023 Average: 3.453 m²K/W

U-value (uncorrected) 0.290

U-value corrections

Air gaps in layer 3 $\Delta U = 0.000$ (Level 0)

No fixings in layer 3

Total ΔU 0.000

U-value (corrected) 0.290

U-value (rounded) 0.29 W/m²K

Heat capacity per m² (κ) 8.8 kJ/m²K

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