

U-value calculation

by BRE U-value Calculator version 2.04d

Printed on 28 Mar 2019 at 15:31

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

Layer	d (mm)	λ layer	λ bridge	Fraction	Density	Sp. heat	R layer	R bridge	Description
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	600	2.300	0.880	0.0300	2600	1000	0.261	0.682	Stone
							<u>0.040</u>		Rse
<u>721 mm</u> (total wall thickness)							3.482		

Total resistance: Upper limit: 3.433 Lower limit: 3.347 Ratio: 1.026 Average: 3.390 m²K/W

U-value (uncorrected) 0.295

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) 0.295 (0.2950)

U-value (rounded) 0.29 W/m²K

Heat capacity per m² (κ) 8.8 kJ/m²K

Calculated by:

Paul Stokes

SWIP LTD

Unit 15 Key Business Park

Kingsbury Road

Erdington

Birmingham

B24 9PT

Tel: 0845 402 3585

E-mail: info@swipwi.co.uk