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U-value calculation by BRE U-value Calculator version 2.04b - Printed on 04 Jun 2015 at 14:16

Element type: Roof - Pitched roof - insulated ceiling - Calculation Method: BS EN ISO 6946

Insulation Online - Plane Ceiling 2 - 4th June 2015

<u>Layer</u>	<u>d (mm)</u>	<u>λ layer</u>	<u>λ bridge</u>	<u>Fraction</u>	<u>R layer</u>	<u>R bridge</u>	<u>Description</u>
					0.100		Rsi
1	12.5	0.210			0.060		Plasterboard
2	100	0.040	0.130	0.0900	2.500	0.769	Earthwool Loft Roll 40 / joists
3	150	0.040			3.750		Earthwool Loft Roll 40
4		R-value ¹			0.200		Roof space
					<u>0.040</u>		Rse
	<u>263 mm</u>				<u>6.650</u>		

¹Roof space - tiled roof, with felt or sarking boards

Total resistance: Upper limit: 6.445 Lower limit: 6.229 Ratio: 1.035 Average: 6.337 m²K/W

U-value (uncorrected) 0.158

U-value corrections

Air gaps in layer 2 ΔU = 0.000 (Level 0)
 Loft hatch ΔU = 0.003 (Insulation thickness = 50 mm)
 Total ΔU 0.003 (2.1% of U)

U-value (corrected) 0.158 (ΔU not added since it is less than 3% of U)
U-value (rounded) 0.16 W/m²K

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