

# UVALUE CALCULATION

Users Ref: 10009

Issued on: 22.January.2010

EES Ref:

Prop Type Ref: 147 Lam

Property:

SAP Rating: 0

Fuel Bill: £0

CO2 Emissions: 0.00 t/year

Energy used: 0.0 GJ per annum

Surveyor: 4885-0001, PAUL BANKS, Tel: 0191 2500818, Fax: 0191 2500548

Address: S and B EPS Ltd, Dudley, Cramlington, Northumberland

Client: 032, CUSTOM HOMES

Software Version: EES SAP 2005.013.build.0009, December 2007, BRE SAP Worksheet 9.70, 9.80

Regs Type: SAP 2001, Regs Region: England and Wales, Construction Type: New Build

Calculation method: BS EN ISO 6946, BS EN ISO 13370, BS 5250

## Building Elements:

### Building Element Wall 147mm Lam - Lambdatherm brickwork

Layer	Description	Thickness	$\lambda$	R	Fraction
<b>External surface</b>				0.040	
<b>Layer1</b>	<b>Brick, outer leaf</b>				
	Main construction	100 mm	0.770	0.130	82.81 %
	Bridging - Mortar	100 mm	0.941	0.000	17.19 %
<b>Layer2</b>	<b>Standard cavity</b>				
	Main construction	60 mm	0.333	0.180	100.00 %
	Corrections - Cavity Unventilated, Emissivity: Normal				
<b>Layer3</b>	<b>Tyvec Reflex Breather membrane</b>				
	Main construction	1 mm	0.003	0.360	100.00 %
<b>Layer4</b>	<b>Orientated Strand Board</b>				
	Main construction	11 mm	0.130	0.085	100.00 %
<b>Layer5</b>	<b>Lambdatherm</b>				
	Main construction	147 mm	0.030	4.900	100.00 %
	Corrections - Air Gap: Level 0, Fasteners: None or plastic				
<b>Layer6</b>	<b>Orientated Strand Board</b>				
	Main construction	11 mm	0.130	0.085	100.00 %
<b>Layer7</b>	<b>airspace/timber battens</b>				
	Main construction	25 mm	0.139	0.180	88.89 %
	Corrections - Cavity Unventilated, Emissivity: Normal				
	Bridging - Timber	25 mm	0.130	0.000	11.11 %
<b>Layer8</b>	<b>Polythene, 500 gauge</b>				
	Main construction	1 mm	0.000	0.000	100.00 %
<b>Layer9</b>	<b>Plasterboard, standard</b>				
	Main construction	12 mm	0.210	0.057	100.00 %
<b>Internal surface</b>				0.130	
<b>Total resistance:</b> Upper limit = 6.144 m <sup>2</sup> K/W Lower limit = 6.143 m <sup>2</sup> K/W Average = 6.143 m <sup>2</sup> K/W					
U-value (unrounded) = 0.1628 W/m <sup>2</sup> K					

Unheated space: None

**Total thickness: 368 mm**

**U-value: 0.16 W/m<sup>2</sup>K**