



FOR A BETTER TOMORROW

# URSA GLASSWOOL

## Psi-values for Masonry Cavity Wall Construction



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### Wall Junction Psi-values

#### E1/E2 Lintel.

*Lintels are available in many different grades (standard to heavy duty), with base plates and without and thermally broken versions. Please contact the lintel manufacturer.*

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## Introduction

The Psi-value is a measure of the rate of heat loss at a junction where two elements meet or around door and window openings. It is measured in W/mK (Watts per metre Kelvin) and is calculated using two dimensional thermal modelling.

Psi-values must be considered when assessing the energy efficiency of a building and are an input into SAP or SBEM calculations. In the past SAP assessors had the option to use the Accredited Construction Details, but these are no longer valid as they do not represent current levels of insulation. Instead, energy assessors are required to use bespoke Psi-values provided by building material manufacturers, their trade associations or specialist consultants.

As part of our enhanced technical service offer to specifiers and users of URSA UK Glass Wool products we have produced this document covering Psi-values for the common junctions in masonry cavity walls.

This document includes a range of external wall details all based on our technical brochure on URSA CAVITY BATTS and BBA Certificate 09/4624. The details are based on the use URSA CAVITY BATT 32 as the full fill cavity wall insulation. Each junction includes the URSA CAVITY BATT 32 thickness, the associated Psi-value, temperature factor and U-value and a drawing showing the temperature response through the detail.

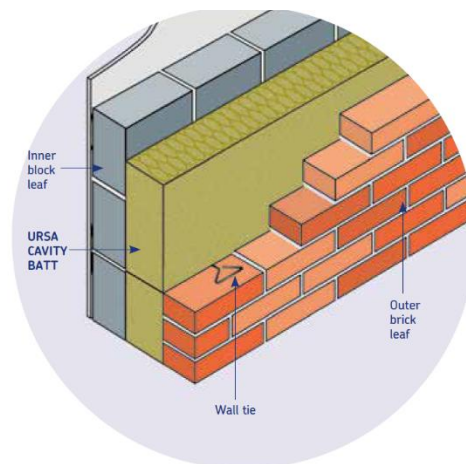
Typical wall construction is as follows.

102mm brick outer

**URSA CAVITY BATT 32** (thickness as shown)

100mm block (type & lambda as shown)

12.5mm plasterboard on dabs



## References

BS EN ISO 10211	Thermal bridges in building construction – Heat flows and surface temperatures - Detailed calculations.
BS EN ISO 6946	Building components and building elements – Thermal resistance and thermal transmittance – Calculation methods.
BRE BR 497 (2nd Ed)	Conventions for calculating linear thermal transmittance and temperature factors.
BRE BR 443	Conventions for U-value calculations.
BRE IP 1/06	Assessing the effects of thermal bridging at junctions and around openings.

## **CILL**

**SAP Ref: E3 (Default 0.10 W/mK)**

Notes;

Minimum 30mm overlap of frame and cavity closer.

Thermal conductivity of cavity closer 0.022 W/mK.



### **100mm URSA CAVITY BATT 32 (CILL)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.015	0.92
AAC Block (0.15 W/mK)	0.24	0.015	0.92
AAC Block (0.19 W/mK)	0.24	0.015	0.92
Light Block (0.31 W/mK)	0.26	0.012	0.92
Light Agg. Block (0.45 W/mK)	0.26	0.011	0.92
Medium Block (0.75 W/mK)	0.27	0.010	0.92
Dense Block (1.30 W/mK)	0.27	0.010	0.92

#### 125mm URSA CAVITY BATT 32 (CILL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.018	0.92
AAC Block (0.15 W/mK)	0.20	0.018	0.92
AAC Block (0.19 W/mK)	0.21	0.017	0.92
Light Block (0.31 W/mK)	0.21	0.017	0.92
Light Agg. Block (0.45 W/mK)	0.22	0.017	0.92
Medium Block (0.75 W/mK)	0.22	0.016	0.92
Dense Block (1.30 W/mK)	0.22	0.016	0.92

#### 150mm URSA CAVITY BATT 32 (CILL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.024	0.92
AAC Block (0.15 W/mK)	0.17	0.024	0.92
AAC Block (0.19 W/mK)	0.18	0.024	0.92
Light Block (0.31 W/mK)	0.18	0.022	0.92
Light Agg. Block (0.45 W/mK)	0.18	0.021	0.92
Medium Block (0.75 W/mK)	0.19	0.020	0.92
Dense Block (1.30 W/mK)	0.19	0.020	0.92

#### 175mm URSA CAVITY BATT 32 (CILL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.023	0.87
AAC Block (0.15 W/mK)	0.15	0.023	0.87
AAC Block (0.19 W/mK)	0.16	0.023	0.87
Light Block (0.31 W/mK)	0.16	0.022	0.87
Light Agg. Block (0.45 W/mK)	0.16	0.020	0.87
Medium Block (0.75 W/mK)	0.16	0.020	0.87
Dense Block (1.30 W/mK)	0.17	0.020	0.87

## **JAMB**

**SAP Ref: E4 (Default 0.10 W/mK)**

Notes;

Minimum 30mm overlap of frame and cavity closer.

Thermal conductivity of cavity closer 0.022 W/mK.



### **100mm URSA CAVITY BATT 32 (JAMB)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.016	0.93
AAC Block (0.15 W/mK)	0.24	0.015	0.93
AAC Block (0.19 W/mK)	0.24	0.014	0.93
Light Block (0.31 W/mK)	0.26	0.014	0.92
Light Agg. Block (0.45 W/mK)	0.26	0.014	0.92
Medium Block (0.75 W/mK)	0.27	0.013	0.92
Dense Block (1.30 W/mK)	0.27	0.013	0.92

### **125mm URSA CAVITY BATT 32 (JAMB)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.19	0.018	0.93
AAC Block (0.15 W/mK)	0.20	0.018	0.93
AAC Block (0.19 W/mK)	0.21	0.018	0.93
Light Block (0.31 W/mK)	0.21	0.016	0.93
Light Agg. Block (0.45 W/mK)	0.22	0.015	0.93
Medium Block (0.75 W/mK)	0.22	0.014	0.93
Dense Block (1.30 W/mK)	0.22	0.013	0.93

### 150mm URSA CAVITY BATT 32 (JAMB)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.021	0.93
AAC Block (0.15 W/mK)	0.17	0.021	0.93
AAC Block (0.19 W/mK)	0.18	0.020	0.93
Light Block (0.31 W/mK)	0.18	0.019	0.93
Light Agg. Block (0.45 W/mK)	0.18	0.018	0.93
Medium Block (0.75 W/mK)	0.19	0.017	0.93
Dense Block (1.30 W/mK)	0.19	0.017	0.93

### 175mm URSA CAVITY BATT 32 (JAMB)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.023	0.93
AAC Block (0.15 W/mK)	0.15	0.023	0.93
AAC Block (0.19 W/mK)	0.16	0.023	0.93
Light Block (0.31 W/mK)	0.16	0.022	0.93
Light Agg. Block (0.45 W/mK)	0.16	0.022	0.93
Medium Block (0.75 W/mK)	0.16	0.022	0.93
Dense Block (1.30 W/mK)	0.17	0.022	0.93

## **GROUND FLOOR (Solid)**

**SAP Ref: E5 (Default 0.32 W/mK)**

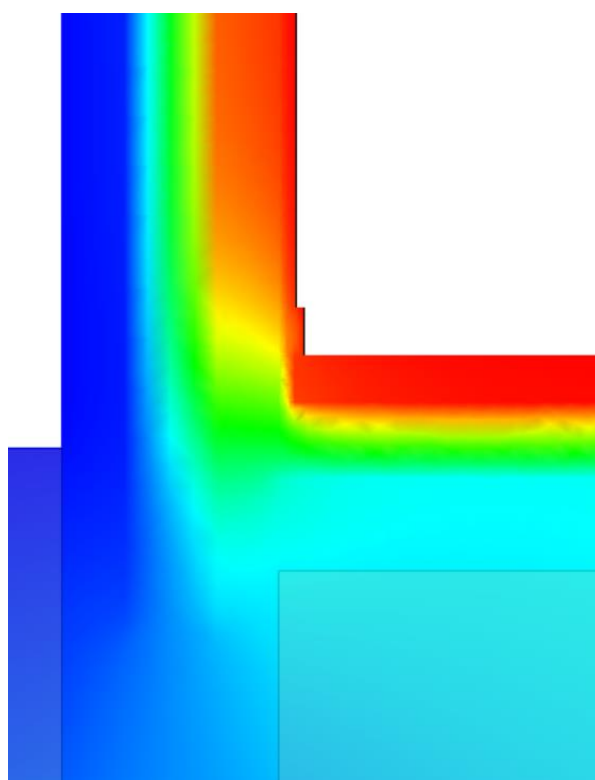
Notes;

Cavity insulation continues to 225mm below underside of floor insulation.

25mm PUR edge insulation.

125mm PUR floor insulation.

Medium density block below DPC. High strength AAC block below DPC with AAC blocks.



### **100mm URSA CAVITY BATT 32 (GROUND FLOOR – SOLID)**

<b>Description</b>	<b>U-Value (W/m²K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.067	0.94
AAC Block (0.15 W/mK)	0.24	0.068	0.94
AAC Block (0.19 W/mK)	0.24	0.070	0.94
Light Block (0.31 W/mK)	0.26	0.083	0.93
Light Agg. Block (0.45 W/mK)	0.26	0.097	0.92
Medium Block (0.75 W/mK)	0.27	0.120	0.92
Dense Block (1.30 W/mK)	0.27	0.156	0.90



### 125mm URSA CAVITY BATT 32 (GROUND FLOOR – SOLID)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.058	0.94
AAC Block (0.15 W/mK)	0.20	0.063	0.94
AAC Block (0.19 W/mK)	0.21	0.068	0.94
Light Block (0.31 W/mK)	0.21	0.084	0.93
Light Agg. Block (0.45 W/mK)	0.22	0.095	0.93
Medium Block (0.75 W/mK)	0.22	0.124	0.92
Dense Block (1.30 W/mK)	0.22	0.170	0.90

### 150mm URSA CAVITY BATT 32 (GROUND FLOOR – SOLID)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.052	0.94
AAC Block (0.15 W/mK)	0.17	0.057	0.94
AAC Block (0.19 W/mK)	0.18	0.066	0.94
Light Block (0.31 W/mK)	0.18	0.082	0.93
Light Agg. Block (0.45 W/mK)	0.18	0.095	0.93
Medium Block (0.75 W/mK)	0.19	0.120	0.92
Dense Block (1.30 W/mK)	0.19	0.170	0.90

### 175mm URSA CAVITY BATT 32 (GROUND FLOOR – SOLID)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.076	0.95
AAC Block (0.15 W/mK)	0.15	0.083	0.95
AAC Block (0.19 W/mK)	0.16	0.090	0.95
Light Block (0.31 W/mK)	0.16	0.104	0.93
Light Agg. Block (0.45 W/mK)	0.16	0.113	0.93
Medium Block (0.75 W/mK)	0.16	0.142	0.92
Dense Block (1.30 W/mK)	0.17	0.175	0.92

## **GROUND FLOOR (Suspended beam & block)**

**SAP Ref: E5 (Default 0.32 W/mK)**

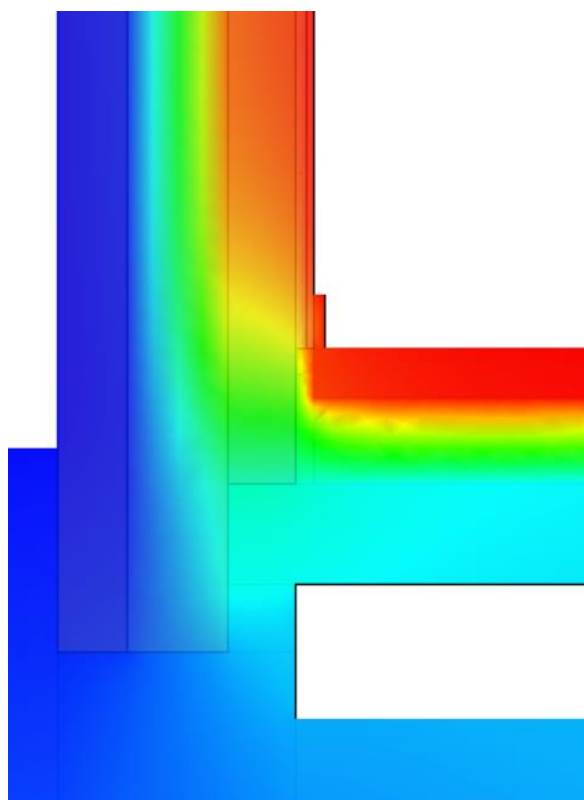
Notes;

Cavity insulation continues to 225mm below underside of floor insulation.

25mm PUR edge insulation.

125mm PUR floor insulation.

Medium density block below DPC. High strength AAC block below DPC with AAC blocks.



### **100mm URSA CAVITY BATT 32 (GROUND FLOOR – SUSPENDED)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.050	0.94
AAC Block (0.15 W/mK)	0.24	0.056	0.94
AAC Block (0.19 W/mK)	0.24	0.062	0.94
Light Block (0.31 W/mK)	0.26	0.077	0.92
Light Agg. Block (0.45 W/mK)	0.26	0.093	0.91
Medium Block (0.75 W/mK)	0.27	0.121	0.91
Dense Block (1.30 W/mK)	0.27	0.164	0.89

### 125mm URSA CAVITY BATT 32 (GROUND FLOOR – SUSPENDED)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.055	0.94
AAC Block (0.15 W/mK)	0.20	0.057	0.94
AAC Block (0.19 W/mK)	0.21	0.063	0.94
Light Block (0.31 W/mK)	0.21	0.079	0.93
Light Agg. Block (0.45 W/mK)	0.22	0.096	0.92
Medium Block (0.75 W/mK)	0.22	0.126	0.91
Dense Block (1.30 W/mK)	0.22	0.168	0.90

### 150mm URSA CAVITY BATT 32 (GROUND FLOOR – SUSPENDED)

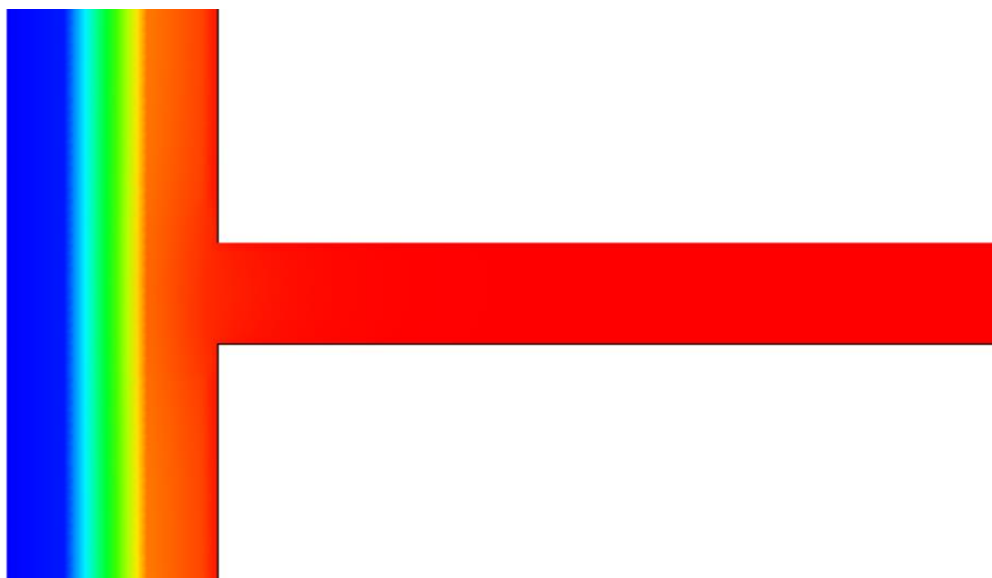
Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.053	0.94
AAC Block (0.15 W/mK)	0.17	0.057	0.94
AAC Block (0.19 W/mK)	0.18	0.063	0.94
Light Block (0.31 W/mK)	0.18	0.079	0.93
Light Agg. Block (0.45 W/mK)	0.18	0.096	0.93
Medium Block (0.75 W/mK)	0.19	0.125	0.92
Dense Block (1.30 W/mK)	0.19	0.168	0.90

### 175mm URSA CAVITY BATT 32 (GROUND FLOOR – SUSPENDED)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.049	0.95
AAC Block (0.15 W/mK)	0.15	0.055	0.95
AAC Block (0.19 W/mK)	0.16	0.061	0.95
Light Block (0.31 W/mK)	0.16	0.077	0.93
Light Agg. Block (0.45 W/mK)	0.16	0.090	0.93
Medium Block (0.75 W/mK)	0.16	0.126	0.92
Dense Block (1.30 W/mK)	0.17	0.172	0.91

## Intermediate Floor (timber)

**SAP Ref: E6 (Default 0.14 W/mK)**



### **100mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – TIMBER)**

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.23	0.002	0.96
AAC Block (0.15 W/mK)	0.24	0.002	0.96
AAC Block (0.19 W/mK)	0.24	0.002	0.96
Light Block (0.31 W/mK)	0.26	0.002	0.96
Light Agg. Block (0.45 W/mK)	0.26	0.002	0.96
Medium Block (0.75 W/mK)	0.27	0.003	0.96
Dense Block (1.30 W/mK)	0.27	0.003	0.95

### **125mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – TIMBER)**

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.002	0.97
AAC Block (0.15 W/mK)	0.20	0.002	0.97
AAC Block (0.19 W/mK)	0.21	0.002	0.97
Light Block (0.31 W/mK)	0.21	0.002	0.97
Light Agg. Block (0.45 W/mK)	0.22	0.002	0.97
Medium Block (0.75 W/mK)	0.22	0.003	0.96
Dense Block (1.30 W/mK)	0.22	0.003	0.96



### 150mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – TIMBER)

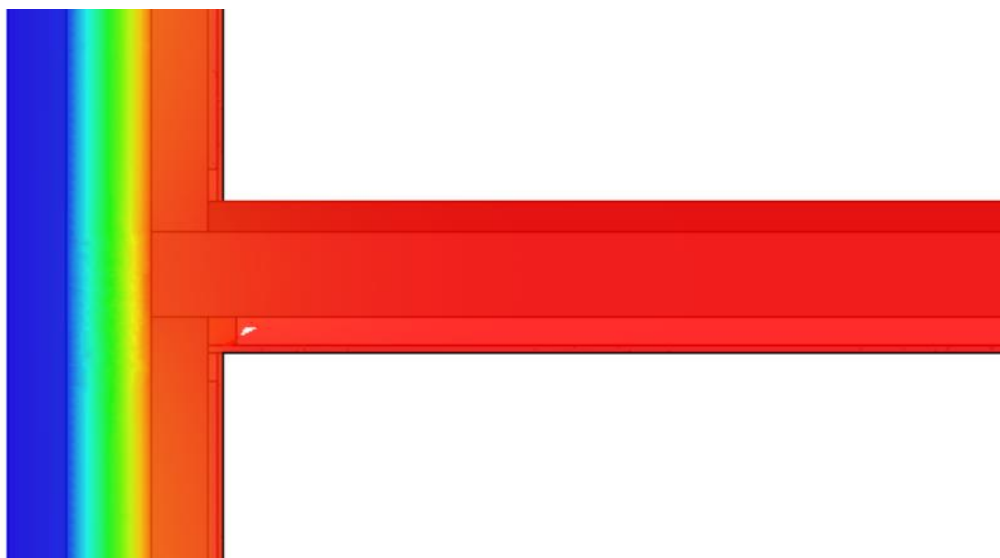
Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.002	0.97
AAC Block (0.15 W/mK)	0.17	0.002	0.97
AAC Block (0.19 W/mK)	0.18	0.002	0.97
Light Block (0.31 W/mK)	0.18	0.002	0.97
Light Agg. Block (0.45 W/mK)	0.18	0.002	0.97
Medium Block (0.75 W/mK)	0.19	0.002	0.97
Dense Block (1.30 W/mK)	0.19	0.002	0.97

### 175mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – TIMBER)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.001	0.98
AAC Block (0.15 W/mK)	0.15	0.001	0.98
AAC Block (0.19 W/mK)	0.16	0.001	0.98
Light Block (0.31 W/mK)	0.16	0.001	0.98
Light Agg. Block (0.45 W/mK)	0.16	0.001	0.97
Medium Block (0.75 W/mK)	0.16	0.001	0.97
Dense Block (1.30 W/mK)	0.17	0.002	0.97

## Intermediate Floor (concrete)

**SAP Ref: E6 (Default 0.14 W/mK)**



### **100mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – CONCRETE)**

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.23	0.014	0.96
AAC Block (0.15 W/mK)	0.24	0.012	0.96
AAC Block (0.19 W/mK)	0.24	0.011	0.96
Light Block (0.31 W/mK)	0.26	0.010	0.96
Light Agg. Block (0.45 W/mK)	0.26	0.008	0.96
Medium Block (0.75 W/mK)	0.27	0.008	0.95
Dense Block (1.30 W/mK)	0.27	0.007	0.95

### **125mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – CONCRETE)**

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.009	0.97
AAC Block (0.15 W/mK)	0.20	0.009	0.97
AAC Block (0.19 W/mK)	0.21	0.008	0.97
Light Block (0.31 W/mK)	0.21	0.007	0.96
Light Agg. Block (0.45 W/mK)	0.22	0.006	0.96
Medium Block (0.75 W/mK)	0.22	0.005	0.96
Dense Block (1.30 W/mK)	0.22	0.005	0.96

### 150mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – CONCRETE)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.007	0.97
AAC Block (0.15 W/mK)	0.17	0.006	0.97
AAC Block (0.19 W/mK)	0.18	0.006	0.97
Light Block (0.31 W/mK)	0.18	0.005	0.97
Light Agg. Block (0.45 W/mK)	0.18	0.004	0.97
Medium Block (0.75 W/mK)	0.19	0.004	0.97
Dense Block (1.30 W/mK)	0.19	0.003	0.97

### 175mm URSA CAVITY BATT 32 (INTERMEDIATE FLOOR – CONCRETE)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.006	0.98
AAC Block (0.15 W/mK)	0.15	0.005	0.98
AAC Block (0.19 W/mK)	0.16	0.005	0.97
Light Block (0.31 W/mK)	0.16	0.004	0.97
Light Agg. Block (0.45 W/mK)	0.16	0.003	0.97
Medium Block (0.75 W/mK)	0.16	0.003	0.97
Dense Block (1.30 W/mK)	0.17	0.003	0.97

## **EAVES (Ceiling Level Insulation)**

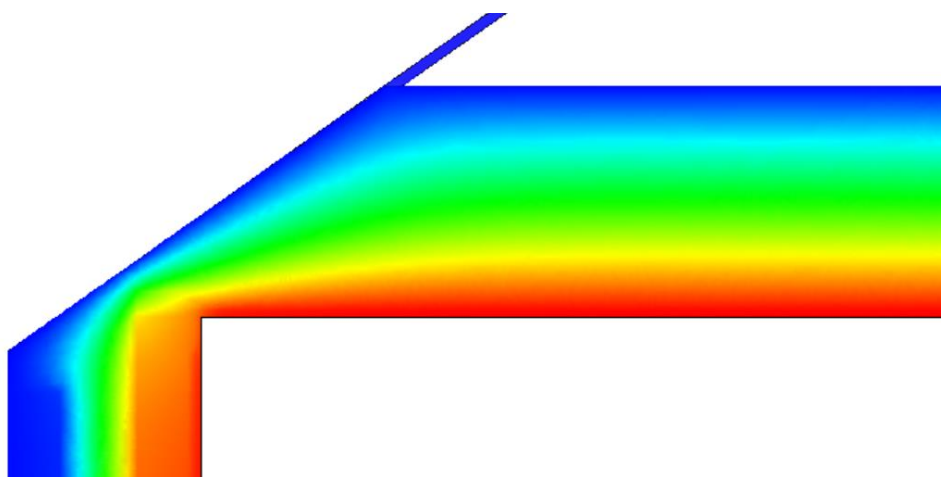
**U-value = 0.10 W/m<sup>2</sup>K**

**SAP Ref: E10 (Default 0.12 W/mK)**

Notes;

450mm URSA 10 loft insulation.

Minimum 50mm insulation above wall plate.



### **100mm URSA CAVITY BATT 32 (EAVES)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.075	0.91
AAC Block (0.15 W/mK)	0.24	0.077	0.91
AAC Block (0.19 W/mK)	0.24	0.079	0.91
Light Block (0.31 W/mK)	0.26	0.079	0.91
Light Agg. Block (0.45 W/mK)	0.26	0.081	0.91
Medium Block (0.75 W/mK)	0.27	0.083	0.91
Dense Block (1.30 W/mK)	0.27	0.085	0.91



### 125mm URSA CAVITY BATT 32 (EAVES)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.080	0.91
AAC Block (0.15 W/mK)	0.20	0.081	0.91
AAC Block (0.19 W/mK)	0.21	0.083	0.91
Light Block (0.31 W/mK)	0.21	0.085	0.91
Light Agg. Block (0.45 W/mK)	0.22	0.087	0.91
Medium Block (0.75 W/mK)	0.22	0.090	0.91
Dense Block (1.30 W/mK)	0.22	0.092	0.92

### 150mm URSA CAVITY BATT 32 (EAVES)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.086	0.91
AAC Block (0.15 W/mK)	0.17	0.088	0.92
AAC Block (0.19 W/mK)	0.18	0.089	0.92
Light Block (0.31 W/mK)	0.18	0.092	0.92
Light Agg. Block (0.45 W/mK)	0.18	0.094	0.92
Medium Block (0.75 W/mK)	0.19	0.097	0.92
Dense Block (1.30 W/mK)	0.19	0.099	0.92

### 175mm URSA CAVITY BATT 32 (EAVES)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.088	0.91
AAC Block (0.15 W/mK)	0.15	0.091	0.92
AAC Block (0.19 W/mK)	0.16	0.092	0.92
Light Block (0.31 W/mK)	0.16	0.096	0.92
Light Agg. Block (0.45 W/mK)	0.16	0.097	0.92
Medium Block (0.75 W/mK)	0.16	0.100	0.92
Dense Block (1.30 W/mK)	0.17	0.104	0.92

## **GABLE (Ceiling Level Insulation)**

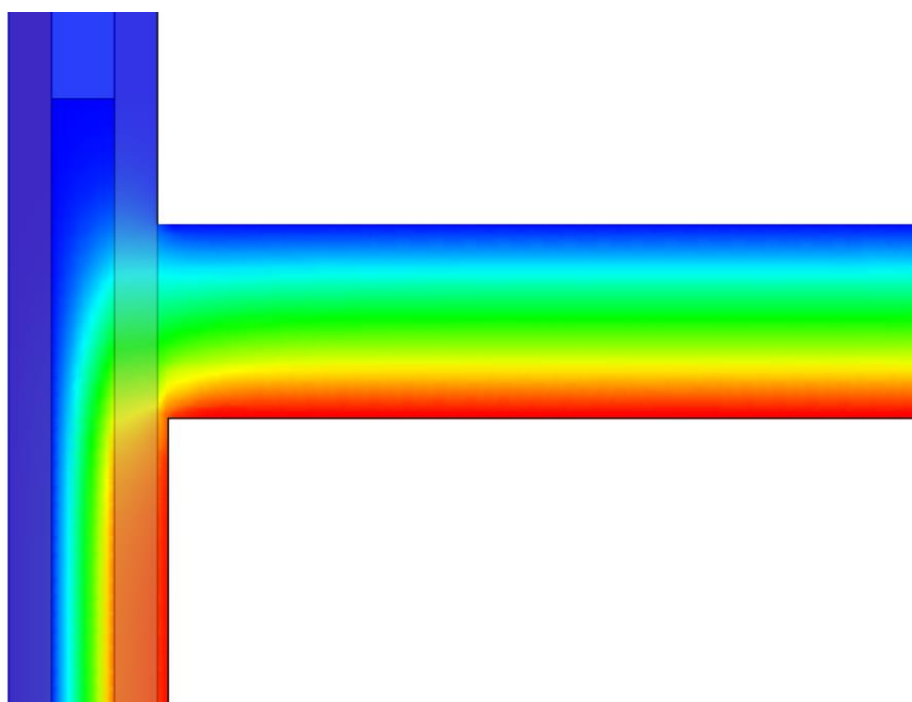
**U-value = 0.10 W/m<sup>2</sup>K**

**SAP Ref: E12 (Default 0.25 W/mK)**

Notes;

450mm URSA 10 loft insulation.

Cavity insulation extends at least 300mm above top of loft insulation.



### **100mm URSA CAVITY BATT 32 (GABLE)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.047	0.91
AAC Block (0.15 W/mK)	0.24	0.053	0.90
AAC Block (0.19 W/mK)	0.24	0.058	0.90
Light Block (0.31 W/mK)	0.26	0.071	0.89
Light Agg. Block (0.45 W/mK)	0.26	0.087	0.88
Medium Block (0.75 W/mK)	0.27	0.116	0.87
Dense Block (1.30 W/mK)	0.27	0.168	0.85

### 125mm URSA CAVITY BATT 32 (GABLE)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.046	0.93
AAC Block (0.15 W/mK)	0.20	0.052	0.92
AAC Block (0.19 W/mK)	0.21	0.057	0.92
Light Block (0.31 W/mK)	0.21	0.071	0.91
Light Agg. Block (0.45 W/mK)	0.22	0.087	0.90
Medium Block (0.75 W/mK)	0.22	0.118	0.88
Dense Block (1.30 W/mK)	0.22	0.170	0.86

### 150mm URSA CAVITY BATT 32 (GABLE)

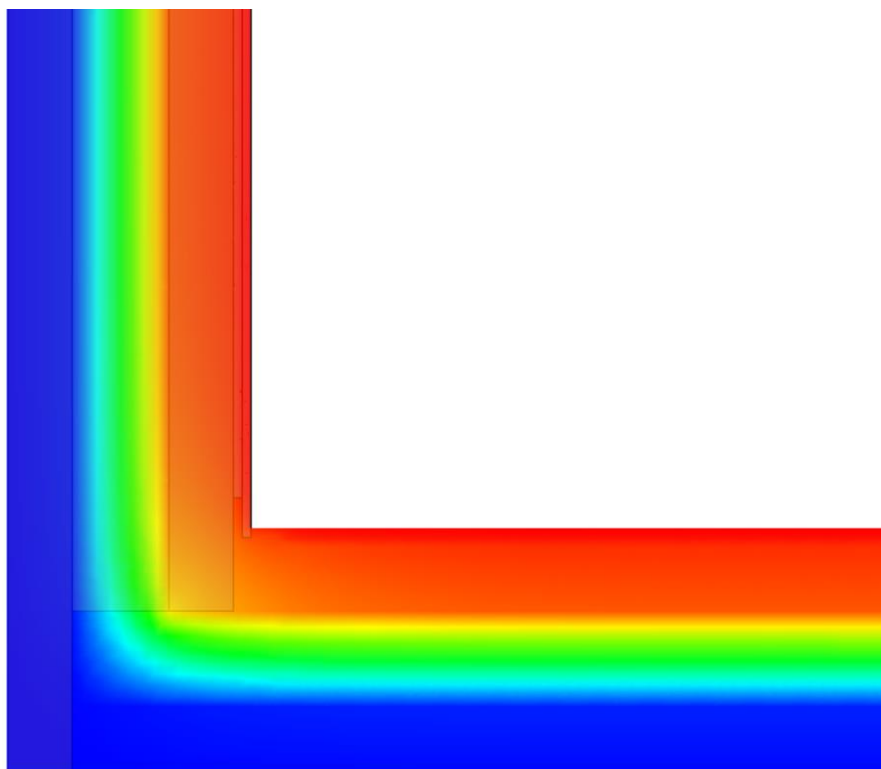
Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.043	0.92
AAC Block (0.15 W/mK)	0.17	0.049	0.92
AAC Block (0.19 W/mK)	0.18	0.055	0.92
Light Block (0.31 W/mK)	0.18	0.069	0.90
Light Agg. Block (0.45 W/mK)	0.18	0.085	0.90
Medium Block (0.75 W/mK)	0.19	0.116	0.90
Dense Block (1.30 W/mK)	0.19	0.170	0.86

### 175mm URSA CAVITY BATT 32 (GABLE)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.051	0.93
AAC Block (0.15 W/mK)	0.15	0.057	0.92
AAC Block (0.19 W/mK)	0.16	0.063	0.92
Light Block (0.31 W/mK)	0.16	0.079	0.91
Light Agg. Block (0.45 W/mK)	0.16	0.094	0.91
Medium Block (0.75 W/mK)	0.16	0.128	0.89
Dense Block (1.30 W/mK)	0.17	0.185	0.86

## **CORNER (Normal)**

**SAP Ref: E16 (Default 0.18 W/mK)**



### **100mm URSA CAVITY BATT 32 (CORNER – NORMAL)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.051	0.91
AAC Block (0.15 W/mK)	0.24	0.054	0.91
AAC Block (0.19 W/mK)	0.24	0.056	0.91
Light Block (0.31 W/mK)	0.26	0.057	0.91
Light Agg. Block (0.45 W/mK)	0.26	0.061	0.90
Medium Block (0.75 W/mK)	0.27	0.064	0.90
Dense Block (1.30 W/mK)	0.27	0.067	0.90



### 125mm URSA CAVITY BATT 32 (CORNER – NORMAL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.047	0.92
AAC Block (0.15 W/mK)	0.20	0.049	0.92
AAC Block (0.19 W/mK)	0.21	0.051	0.92
Light Block (0.31 W/mK)	0.21	0.053	0.92
Light Agg. Block (0.45 W/mK)	0.22	0.054	0.92
Medium Block (0.75 W/mK)	0.22	0.056	0.92
Dense Block (1.30 W/mK)	0.22	0.058	0.92

### 150mm URSA CAVITY BATT 32 (CORNER – NORMAL)

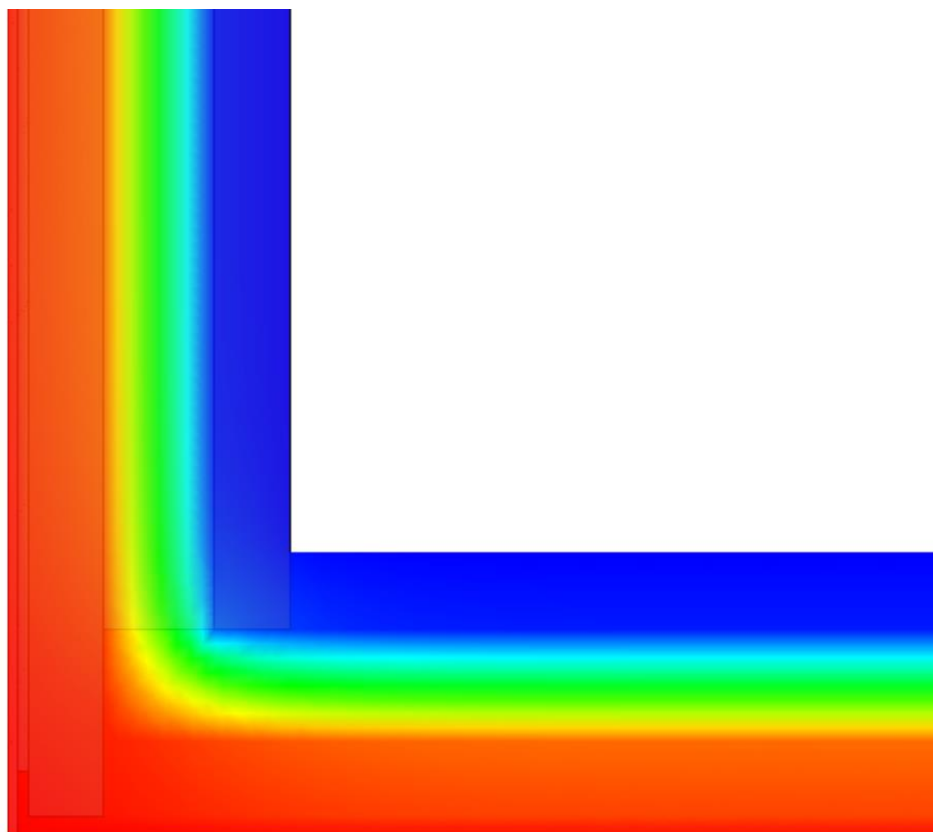
Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.044	0.93
AAC Block (0.15 W/mK)	0.17	0.046	0.93
AAC Block (0.19 W/mK)	0.18	0.048	0.93
Light Block (0.31 W/mK)	0.18	0.048	0.93
Light Agg. Block (0.45 W/mK)	0.18	0.049	0.93
Medium Block (0.75 W/mK)	0.19	0.050	0.93
Dense Block (1.30 W/mK)	0.19	0.052	0.93

### 175mm URSA CAVITY BATT 32 (CORNER – NORMAL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.041	0.93
AAC Block (0.15 W/mK)	0.15	0.043	0.93
AAC Block (0.19 W/mK)	0.16	0.044	0.93
Light Block (0.31 W/mK)	0.16	0.047	0.93
Light Agg. Block (0.45 W/mK)	0.16	0.049	0.93
Medium Block (0.75 W/mK)	0.16	0.052	0.93
Dense Block (1.30 W/mK)	0.17	0.055	0.93

## **CORNER (Inverted)**

**SAP Ref: E17 (Default 0.00 W/mK)**



### **100mm URSA CAVITY BATT 32 (CORNER – INVERTED)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	-0.092	0.97
AAC Block (0.15 W/mK)	0.24	-0.095	0.97
AAC Block (0.19 W/mK)	0.24	-0.097	0.97
Light Block (0.31 W/mK)	0.26	-0.106	0.97
Light Agg. Block (0.45 W/mK)	0.26	-0.108	0.97
Medium Block (0.75 W/mK)	0.27	-0.111	0.97
Dense Block (1.30 W/mK)	0.27	-0.113	0.97

### 125mm URSA CAVITY BATT 32 (CORNER – INVERTED)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	-0.085	0.97
AAC Block (0.15 W/mK)	0.20	-0.087	0.97
AAC Block (0.19 W/mK)	0.21	-0.089	0.97
Light Block (0.31 W/mK)	0.21	-0.095	0.97
Light Agg. Block (0.45 W/mK)	0.22	-0.098	0.97
Medium Block (0.75 W/mK)	0.22	-0.102	0.97
Dense Block (1.30 W/mK)	0.22	-0.103	0.97

### 150mm URSA CAVITY BATT 32 (CORNER – INVERTED)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	-0.079	0.98
AAC Block (0.15 W/mK)	0.17	-0.081	0.98
AAC Block (0.19 W/mK)	0.18	-0.083	0.98
Light Block (0.31 W/mK)	0.18	-0.087	0.98
Light Agg. Block (0.45 W/mK)	0.18	-0.090	0.98
Medium Block (0.75 W/mK)	0.19	-0.093	0.98
Dense Block (1.30 W/mK)	0.19	-0.094	0.98

### 175mm URSA CAVITY BATT 32 (CORNER – INVERTED)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	-0.076	0.98
AAC Block (0.15 W/mK)	0.15	-0.077	0.98
AAC Block (0.19 W/mK)	0.16	-0.078	0.98
Light Block (0.31 W/mK)	0.16	-0.080	0.98
Light Agg. Block (0.45 W/mK)	0.16	-0.086	0.98
Medium Block (0.75 W/mK)	0.16	-0.087	0.98
Dense Block (1.30 W/mK)	0.17	-0.087	0.98

## **PARTY WALL (Between dwellings)**

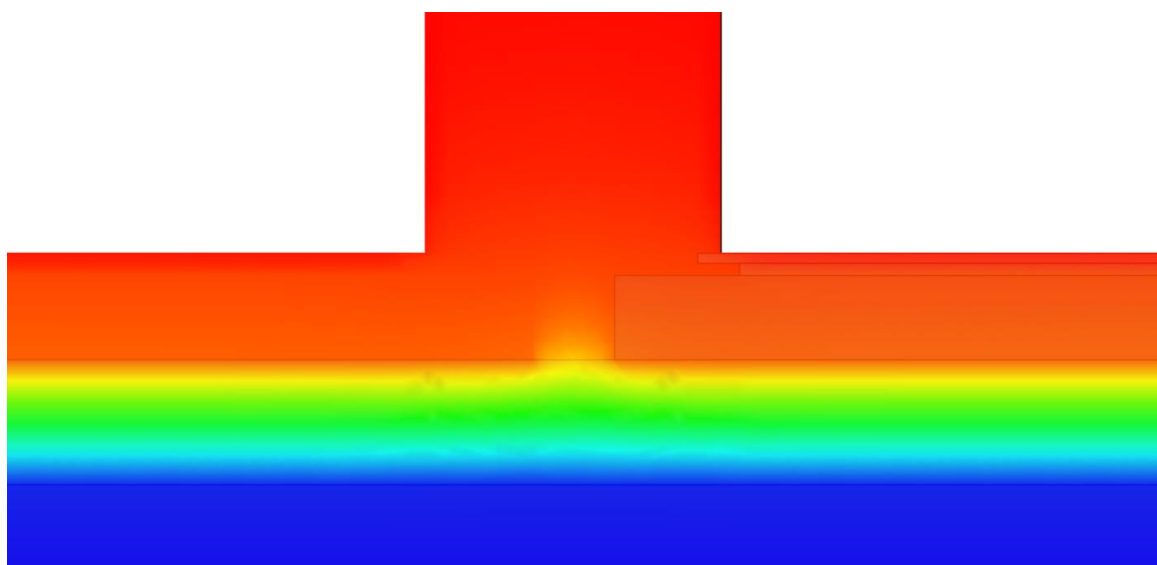
**SAP Ref: E18 (Default 0.24 W/mK)**

Notes;

Psi-value is applied to each dwelling.

100mm URSA PARTY WALL ROLL/URSA CAVITY BATT 35 in party wall.

Party wall blockwork same as external blockwork.



### **100mm URSA CAVITY BATT 32 (PARTY WALL)**

<b>Description</b>	<b>U-Value (W/m<sup>2</sup>K)</b>	<b>Psi-Value (W/mK)</b>	<b>Temperature Factor</b>
AAC Block (0.11 W/mK)	0.23	0.036	0.94
AAC Block (0.15 W/mK)	0.24	0.038	0.94
AAC Block (0.19 W/mK)	0.24	0.039	0.94
Light Block (0.31 W/mK)	0.26	0.041	0.94
Light Agg. Block (0.45 W/mK)	0.26	0.043	0.94
Medium Block (0.75 W/mK)	0.27	0.045	0.94
Dense Block (1.30 W/mK)	0.27	0.045	0.94



### 125mm URSA CAVITY BATT 32 (PARTY WALL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.19	0.031	0.95
AAC Block (0.15 W/mK)	0.20	0.032	0.95
AAC Block (0.19 W/mK)	0.21	0.033	0.95
Light Block (0.31 W/mK)	0.21	0.034	0.95
Light Agg. Block (0.45 W/mK)	0.22	0.034	0.95
Medium Block (0.75 W/mK)	0.22	0.035	0.95
Dense Block (1.30 W/mK)	0.22	0.037	0.95

### 150mm URSA CAVITY BATT 32 (PARTY WALL)

Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.17	0.028	0.96
AAC Block (0.15 W/mK)	0.17	0.028	0.96
AAC Block (0.19 W/mK)	0.18	0.029	0.96
Light Block (0.31 W/mK)	0.18	0.029	0.96
Light Agg. Block (0.45 W/mK)	0.18	0.029	0.96
Medium Block (0.75 W/mK)	0.19	0.030	0.96
Dense Block (1.30 W/mK)	0.19	0.031	0.96

### 175mm URSA CAVITY BATT 32 (PARTY WALL)


Description	U-Value (W/m <sup>2</sup> K)	Psi-Value (W/mK)	Temperature Factor
AAC Block (0.11 W/mK)	0.15	0.025	0.96
AAC Block (0.15 W/mK)	0.15	0.025	0.96
AAC Block (0.19 W/mK)	0.16	0.026	0.96
Light Block (0.31 W/mK)	0.16	0.027	0.96
Light Agg. Block (0.45 W/mK)	0.16	0.027	0.96
Medium Block (0.75 W/mK)	0.16	0.028	0.96
Dense Block (1.30 W/mK)	0.17	0.029	0.96




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