

## Project Information

Client : Grahame White, OWLarchitecture.com

Date : 22 February 2021

Address : 25 Crescent View, Leeds, LS17 7QF

Project : loft, west Yoks

**Construction Type :** Ceilings > Insulation between & below joists > Conventional Insulation Options - Mechanical Fix

	Thickness (m)	Thermal conductivity (W/mK)	Thermal resistance (m <sup>2</sup> K/W)	Bridge details air gaps
Outside surface resistance	0.0000	0.0000	0.0400	—
Tiling including batten space	—	—	—	—
Loft space	—	—	0.2000	—
Insulation between joists <i>Celotex GA4000 75.0mm</i>	0.0750	0.0220	3.4091	0.8820
Timber with joist spacing	0.0750	0.1300	0.5769	0.1180
Insulation below joists, taped joints as VCL + Air Leakage Barrier <i>Celotex GA4000 75.0mm</i>	0.0750	0.0220	3.4091	—
25 x 47mm service void fixing batten	0.0250	0.1300	0.1923	0.1180
25mm service void air space	0.0250	—	0.4538	0.8820
12.5mm Gyproc Wallboard	0.0125	0.1900	0.0658	—
Inside surface resistance	0.0000	0.0000	0.1000	—

**U-value = 0.15 W/m<sup>2</sup>K** (combined method : 0.148 W/m<sup>2</sup>K, upper limit : 7.149m<sup>2</sup>K/W, lower limit : 6.365m<sup>2</sup>K/W)

## Correction Factors

**Mechanical Fasteners : N/A**

**Air Gap Corrections : Delta Ug = 0.0020 W/m<sup>2</sup>K**

(Based on the combined method for determining U-values of structures containing repeating thermal bridges)