

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 & above joists

	Thickness (m)	Thermal conductivity (W/mK)	Thermal resistance (m ² K/W)	Bridge details air gaps
Outside surface resistance	0.0000	0.0000	0.0400	—
Tiling including batten space	—	—	—	—
Loft space	—	—	0.2000	—
Insulation above joists <i>Celotex GA4000 100.0mm</i>	0.1000	0.0220	4.5455	—
Insulation between joists <i>Celotex TB4000 20.0mm</i>	0.0200	0.0220	0.9091	0.8820
Timber joist depth (mm)	0.0200	0.1300	0.1538	0.1180
Cavity	0.0800	0.0000	0.4541	0.8820
Timber joist depth (mm)	0.0800	0.1300	0.6154	0.1180
VCL & Air leakage barrier	—	—	—	—
12.5mm Gyproc Wallboard	0.0125	0.1900	0.0658	—
Inside surface resistance	0.0000	0.0000	0.1000	—

U-value = 0.16 W/m²K (combined method : 0.163 W/m²K, upper limit : 6.238m²K/W, lower limit : 5.995m²K/W)

Correction Factors

Mechanical Fasteners : N/A

Air Gap Corrections : Delta Ug = 0.0002 W/m²K

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