

Project Information

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Client Grahame White, OWLarchitecture.com Project Refurbishment
62 The Fairway Leeds
Leeds LS17 7PD

Celotex Limited

Lady Lane Industrial Estate
Hadleigh, Ipswich
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Construction Type

Element : GARAGE WALL
: Wall - Merged in - 1 Timber Framed Wall - Garage Partition Wall -
Insulation Between Studs

Internal surface emissivity	: High	External surface emissivity	: High	
		Thickness	Thermal Conductivity	Thermal Resistance
		(mm)	(W/mK)	(m ² K/W)
Outside surface resistance		-	-	0.130
Knauf fire resistant plasterboard		12.5	-	0.050
Celotex GA4000 between timber studs		100.0	-	4.545
				15.0% Timber (100.0mm) delta U"=0.01
Cavity between studs - low emissivity		25.0	-	0.665
				15.0% Timber (25.0mm)
Polythene, 1000 gauge VCL		-	-	-
Knauf Wallboard		12.5	-	0.066
Inside surface resistance		-	-	0.130

U-value = 0.28W/m²K

U-value, Combined Method : 0.28W/m²K (upper/lower limit 3.784 / 3.480m²K/W, dUf 0.0000, dUg 0.0066, dUp0.0000, dUr0.0000, dUrc0.0000)

(Correction for mechanical fasteners, Delta Uf = 0.000W/m²K)

(Correction for air gaps, Delta Ug = 0.007W/m²K)

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