

TYPICAL THERMAL CONDUCTIVITY OF BUILDING MATERIALS: STRUCTURAL AND FINISHING MATERIALS <small>(Always check manufacturer's details – variation will occur depending on product and nature of materials).</small>	THERMAL CONDUCTIVITY (W/mK)
Acoustic plasterboard	0.25
Aerated concrete slab (500kg/m <sup>3</sup> )	0.16
Aluminium	237
Asphalt (1700kg/m <sup>3</sup> )	0.50
Bitumen-impregnated fibreboard	0.05
Brickwork (outer leaf 1700kg/m <sup>3</sup> )	0.84
Brickwork (inner leaf 1700kg/m <sup>3</sup> )	0.62
Dense aggregate concrete block 1800 kg/m <sup>3</sup> (exposed)	1.21
Dense aggregate concrete block 1800 kg/m <sup>3</sup> (protected)	1.13
Calcium silicate board (600 kg/m <sup>3</sup> )	0.17
Concrete general	1.28
Cast concrete (heavyweight 2300 kg/m <sup>3</sup> )	1.63
Cast concrete (dense 2100 kg/m <sup>3</sup> typical floor)	1.40
Cast concrete (dense 2000 kg/m <sup>3</sup> typical floor)	1.13
Cast concrete (medium 1400 kg/m <sup>3</sup> )	0.51
Cast concrete (lightweight 1200 kg/m <sup>3</sup> )	0.38
Cast concrete (lightweight 600 kg/m <sup>3</sup> )	0.19
Concrete slab (aerated 500kg/m <sup>3</sup> )	0.16
Copper	390
External render sand/cement finish	1.00
External render (1300 kg/m <sup>3</sup> )	0.50
Felt - Bitumen layers (1700kg/m <sup>3</sup> )	0.50
Fibreboard (300 kg/m <sup>3</sup> )	0.06
Glass	0.93
Marble	3
Metal tray used in wiggly tin concrete floors (7800 kg/m <sup>3</sup> )	50.00
Mortar (1750 kg/m <sup>3</sup> )	0.80
Oriented strand board	0.13
Outer leaf brick	0.77
Plasterboard	0.21
Plaster dense (1300 kg/m <sup>3</sup> )	0.50
Plaster lightweight (600 kg/m <sup>3</sup> )	0.16
Plywood (950 kg/m <sup>3</sup> )	0.16
Prefabricated timber wall panels (check manufacturer)	0.12
Screed (1200kg/m <sup>3</sup> )	0.41
Stone chippings (1800 kg/m <sup>3</sup> )	0.96
Tile hanging (1900 kg/m <sup>3</sup> )	0.84
Timber (650 kg/m <sup>3</sup> )	0.14
Timber flooring (650 kg/m <sup>3</sup> )	0.14
Timber rafters	0.13
Timber roof or floor joists	0.13
Roof tile (1900kg/m <sup>3</sup> )	0.84
Timber blocks (650 kg/m <sup>3</sup> )	0.14
Web of I stud timber	0.15
Wood wool slab (500kg/m <sup>3</sup> )	0.10
Cellular glass	0.038-0.050
Expanded polystyrene	0.030-0.038
Expanded polystyrene slab (25 kg/m <sup>3</sup> )	0.035
Extruded polystyrene	0.029-0.039
Glass mineral wool	0.031-0.044
Mineral quilt (12 kg/m <sup>3</sup> )	0.040
Mineral wool slab (25 kg/m <sup>3</sup> )	0.035
Phenolic foam	0.021-0.024
Polyisocyanurate	0.022-0.028
Polyurethane	0.022 –0.028
Rigid polyurethane	0.022-0.028
Rock mineral wool	0.034 –0.042