

### Choosing Materials Key Considerations

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#### Comparative embodied energy data for key components of the exemplar house

Component	approx weight in Kg	embodied energy in MJ/kg	Component total
<b>Floors – concrete</b>			
concrete in the floor slab brick veneer cladding	57,120	1.0	57,120
concrete in the floor slab	53,184	1.0	53,184
concrete masonry foundation	1312	0.94	1233
reinforcing steel for slab on ground and foundation	789	8.9	7022
<b>Floor – suspended timber (excluding garage slab)</b>			
concrete masonry foundation wall	460	0.94	432
foundation wall reinforcing	147.5	8.9	1313
concrete to footings	13,440	1.0	13,440
timber framing (air dried, gauged, 600 kg/m <sup>3</sup> ) <sup>(1)</sup>	2562	1.16	2972
particleboard flooring	1244	8.0	9952
<b>Windows and glazing</b>			
aluminium window joinery factory coated	144	34.3	4939
aluminium window joinery anodised	144	42.9	6178
float glass	450	15.9	7155
<b>Timber Framing (500 kg/m<sup>3</sup> @ 12 % mc) <sup>(1)</sup></b>			
timber wall framing ground and first floor – kiln dried, gauged,	2255	2.5	5638
timber roof framing – kiln dried, gauged, light roof	1875	2.5	4688

timber roof framing – kiln dried, gauged, heavy roof	1925	2.5	4813
Timber ceiling framing and battens – kiln dried, gauged,	2035	2.5	5088
<b>First floor</b>			
Particleboard flooring	544	8.0	4352
First floor framing kiln dried (1)	1505	2.5	3763
<b>Wall cladding</b>			
timber weatherboard cladding – kiln-dried, dressed (1)	2646	9.5	25137
Brick veneer	13780	6.7	92326
Fibre-cement sheet	2940	9.4	27636
<b>Roof cladding</b>			
steel roofing	1048	34.8	36470
concrete tile roofing	10350	0.81	8384
<b>Insulation</b>			
glasswool insulation	294	30.3	8908
<b>Internal linings</b>			
plasterboard linings	4518	6.1	27560

Notes (1) timber treatment not allowed for in embodied energy figure