

Roof assemblies

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Concrete tile pitched roof, timber frame, plasterboard ceiling		Pitched timber framed roof with concrete tiles on timber battens. Painted 10mm plasterboard horizontal ceiling with R4.0 fibreglass insulation.			
Materials	Description	Unit	Quantity	EE (MJ/unit)	EE (MJ/m ²)
concrete roof tile (20mm)	concrete roof tiles	m ²	1.0	179	179
timber softwood (50x35 300C battens)	battens, softwood, 50 x 35	m ³	0.007	12160	85
timber softwood (90x35 600C framing)	rafters, softwood, 90 x 35	m ³	0.0063	12160	77
timber softwood (90x35 450C ceiling framing)	joists, softwood, 90 x 35	m ³	0.0095	12160	115
fibreglass insulation	insulation, 190mm thick, R4.0	m ³	0.17	1438	245
plasterboard	plasterboard lining 10mm	m ²	1.0	86	86
water-based paint	acrylic paint (ceiling paint)	m ²	1.0	8.7	8.7

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Terracotta tile pitched roof, timber frame, plasterboard ceiling		Pitched timber framed roof with terracotta tiles on timber battens. Painted 10mm plasterboard horizontal ceiling with R4.0 fibreglass insulation.			
Materials	Description	Unit	Quantity	EE (MJ/unit)	EE (MJ/m ²)
terracotta roof tile (20mm)	terracotta roof tiles	m ²	1.0	278	278
timber softwood (50x35 300C battens)	battens, softwood, 50 x 35	m ³	0.007	12160	85
timber softwood (90x35 600C framing)	rafters, softwood, 90 x 35	m ³	0.0063	12160	77
timber softwood (90x35 450C ceiling framing)	joists, softwood, 90 x 35	m ³	0.0095	12160	115
fibreglass insulation	insulation, 190mm thick, R4.0	m ³	0.17	1438	245
plasterboard	plasterboard lining 10mm	m ²	1.0	86	86
water-based paint	acrylic paint (ceiling paint)	m ²	1.0	8.7	8.7

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Corrugated steel sheet roof, timber frame, plasterboard ceiling		Pitched timber framed roof with colourbond corrugated steel on timber battens. Painted 10mm plasterboard horizontal ceiling with R4.0 fibreglass insulation.			
Materials	Description	Unit	Quantity	EE (MJ/unit)	EE (MJ/m ²)
steel (corrugated sheet colourbond)	colourbond steel roofing	m ²	1.0	293	293
timber softwood (50x35 300C battens)	battens, softwood, 50 x 35	m ³	0.007	12160	85
timber softwood (90x35 600C framing)	rafters, softwood, 90 x 35	m ³	0.0063	12160	77
timber softwood (90x35 450C ceiling framing)	joists, softwood, 90 x 35	m ³	0.0095	12160	115
fibreglass insulation	insulation, 190mm thick, R4.0	m ³	0.17	1438	245
plasterboard	plasterboard lining 10mm	m ²	1.0	86	86
water-based paint	acrylic paint (ceiling paint)	m ²	1.0	8.7	8.7

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Corrugated steel sheet roof, steel frame, plasterboard ceiling		Pitched steel framed roof with colourbond corrugated steel on steel battens. Painted 10mm plasterboard horizontal ceiling with R4.0 fibreglass insulation.			
Materials	Description	Unit	Quantity	EE (MJ/unit)	EE (MJ/m ²)
steel (corrugated sheet colourbond)	colourbond steel roofing	m ²	1.0	293	293
steel (16x32 battens)	battens, steel, 16 x 32	kg	1.5	52	78
steel (90x45 600C framing)	rafters, steel, 90 x 45	kg	2.1	52	110
steel (90x45 450C ceiling framing)	joists, steel, 90 x 45	kg	3.2	52	164
fibreglass insulation	insulation, 190mm thick, R4.0	m ³	0.16	1438	236
plasterboard	plasterboard lining 10mm	m ²	1.0	86	86
water-based paint	acrylic paint (ceiling paint)	m ²	1.0	8.7	8.7

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