

Wall assemblies

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| Brick veneer wall, timber frame | Brick veneer construction with 110mm extruded bricks, unventilated 40mm airspace. Reflective insulation attached to outside of frame. Bright side of foil faces stud cavity. 90mm timber stud frame with fibreglass insulation installed in cavity with painted 10mm plasterboard lining. | | | | |
|--|---|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| ceramic brick, 230x110x76 | external cladding | m ² | 0.89 | 476 | 423 |
| mortar, 230x110x76 | external cladding | m ³ | 0.012 | 6875 | 83 |
| steel, wall ties | wall ties | t | 0.00011 | 77600 | 8.8 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| timber softwood, framing 90x45 450C | 90 x 45 softwood framing 450C | m ³ | 0.012 | 13181 | 160 |
| fibreglass insulation | insulation, 90mm thick, R2.7 | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |
| 890 | | | | | |

| Brick veneer wall, steel frame | Brick veneer construction with 110mm extruded bricks, unventilated 40mm airspace. Reflective insulation attached to outside of frame. Bright side of foil faces stud cavity. 90mm steel stud frame with fibreglass insulation installed in cavity with painted 10mm plasterboard lining. | | | | |
|---------------------------------------|--|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| ceramic brick, 230x110x76 | external cladding | m ² | 0.89 | 476 | 423 |
| mortar, 230x110x76 | external cladding | m ³ | 0.012 | 6875 | 83 |
| steel, wall ties | wall ties | t | 0.00011 | 77600 | 8.8 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| steel, framing 90x45 450C | 90 x 45 C studs | t | 0.0047 | 77600 | 365 |
| fibreglass insulation | insulation, 90mm thick, R2.7 | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |
| 1096 | | | | | |

| Reverse brick veneer wall, timber frame | Reverse brick veneer construction with 8mm fibre cement sheet external cladding fixed to stud. Reflective insulation attached to outside of stud frame, bright side of foil facing stud cavity. 90mm timber stud frame with fibreglass insulation installed in cavity. Reflective insulation attached to inside of stud frame, bright side of foil facing 40mm airspace. 110mm extruded bricks and painted 10mm plasterboard internal lining. | | | | |
|--|---|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| fibre cement sheet | external cladding 8mm FC sheet | m ³ | 0.008 | 47510 | 380 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| timber softwood, framing 90x45 450C | 90 x 45 softwood framing 450C | m ³ | 0.012 | 13181 | 160 |
| fibreglass insulation | insulation, 90mm thick | m ³ | 0.078 | 1018 | 79 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| steel, wall ties | wall ties | t | 0.00011 | 77600 | 8.8 |
| ceramic brick, 230x110x76 | internal cladding | m ² | 0.89 | 476 | 423 |
| mortar, 230x110x76 | internal cladding | t | 0.012 | 6875 | 83 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |
| 1320 | | | | | |

| Hardwood weatherboard wall, timber frame | | Hardwood timber cladding fixed over 35mm timber battens with reflective foil insulation. Bright side of foil facing stud cavity. 90mm timber stud frame with fibreglass insulation installed in cavity and painted 10mm plasterboard lining. | | | |
|--|-------------------------------|--|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| timber hardwood, external cladding | weatherboards 25mm thick | m ³ | 0.025 | 58411 | 1460 |
| timber softwood, battens 20x35 | 35mm battens | m ³ | 0.0028 | 13181 | 37 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| timber softwood, framing 90x45 450C | 90 x 45 softwood framing 450C | m ³ | 0.012 | 13181 | 160 |
| fibreglass insulation | insulation, 90mm thick | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1 | 16.1 | 16.1 |
| 1888 | | | | | |

| Hardwood weatherboard wall, steel frame | | Hardwood timber cladding fixed over 35mm timber battens with reflective foil insulation. Bright side of foil facing stud cavity. 90mm steel stud frame with fibreglass insulation installed in cavity and painted 10mm plasterboard lining. | | | |
|---|--------------------------|---|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| timber hardwood, external cladding | weatherboards 25mm thick | m ³ | 0.025 | 58411 | 1460 |
| timber softwood, battens 20x35 | 35mm battens | m ³ | 0.0028 | 13181 | 37 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| steel, framing 90x45 450C | 90 x 45 C studs | t | 0.0047 | 77600 | 365 |
| fibreglass insulation | insulation, 90mm thick | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |
| 2093 | | | | | |

| Corrugated steel wall, timber frame | | Corrugated steel cladding fixed over 35mm timber battens with reflective foil insulation. Bright side of foil facing stud cavity. 90mm timber stud frame with fibreglass insulation installed in cavity and painted 10mm plasterboard lining. | | | |
|-------------------------------------|-------------------------------|---|----------|--------------|------------------------|
| Materials | Description | | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| steel, corrugated sheet | external cladding | m ² | 1.0 | 286 | 286 |
| timber softwood, battens 20x35 | 35mm battens | m ³ | 0.0028 | 13181 | 37 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| timber softwood, framing 90x45 450C | 90 x 45 softwood framing 450C | m ³ | 0.012 | 13181 | 160 |
| fibreglass insulation | insulation, 90mm thick | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |
| 714 | | | | | |

| Cavity clay brick wall | | Double brick wall of 110mm extruded bricks, unventilated 40mm airspace. Reflective foil insulation mid-point of cavity (by use of spacers). Bright side of foil facing inwards. Painted 10mm plasterboard lining. | | | |
|--------------------------------|-------------------|---|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| ceramic brick, 230x110x76 | external cladding | m ² | 0.89 | 476 | 423 |
| mortar, 230x110x76 | external cladding | m ³ | 0.012 | 6875 | 83 |
| steel, wall ties | wall ties | t | 0.00011 | 77600 | 8.8 |
| timber softwood, battens 20x35 | spacers | m ³ | 0.0028 | 13181 | 37 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| ceramic brick, 230x110x76 | internal cladding | m ² | 0.89 | 476 | 423 |
| mortar, 230x110x76 | internal cladding | m ³ | 0.012 | 6875 | 83 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |
| 1194 | | | | | |

| Cavity concrete block wall | Double concrete block wall of 200mm hollow concrete blocks, unventilated 40mm airspace. Reflective foil insulation mid-point of cavity (by use of spacers). Bright side of foil facing inwards. Painted 10mm plasterboard lining. | | | | |
|-----------------------------------|---|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| cement render | external finish | m ² | 1.0 | 27 | 27 |
| concrete block, 390x190x190 | external cladding (190/390/190) | m ² | 0.94 | 664 | 624 |
| mortar, 390x190x190 | external cladding | m ³ | 0.013 | 6875 | 91 |
| timber softwood, battens 20x35 | spacers | m ³ | 0.0028 | 13181 | 37 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| concrete block, 390x190x190 | external cladding (190/390/190) | m ² | 0.94 | 664 | 624 |
| mortar, 390x190x190 | | m ³ | 0.013 | 6875 | 91 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |

1647

| Concrete block veneer wall, timber frame | Concrete block construction with 200mm hollow concrete blocks, unventilated 40mm airspace. Reflective insulation attached to outside of frame. Bright side of foil faces stud cavity. 90mm timber stud frame with fibreglass insulation installed in cavity with painted 10mm plasterboard lining. | | | | |
|---|--|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| cement render | external finish | m ² | 1.0 | 27 | 27 |
| concrete block, 390x190x190 | external cladding (190/390/190) | m ² | 0.94 | 664 | 624 |
| mortar, 390x190x190 | external cladding | m ³ | 0.013 | 6875 | 91 |
| steel, wall ties | wall ties | t | 0.00011 | 77600 | 8.8 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| timber softwood, framing 90x45 450C | 90 x 45 softwood framing 450C | m ³ | 0.012 | 13181 | 160 |
| fibreglass insulation | insulation, 90mm thick | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |

1143

| Single skin AAC block wall, plasterboard lining | Autoclaved aerated concrete (AAC) construction with 250mm thick AAC blocks with 4mm cement render, steel battens and painted 10mm plasterboard lining. | | | | |
|--|--|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| cement render | external finish | m ² | 1.0 | 27 | 27 |
| AAC block, 600x250x200 | AAC CSR Hebel® blocks | m ² | 0.99 | 1429 | 1411 |
| adhesive, 600x250x200 | CSR adhesive | m ³ | 0.0031 | 203661 | 636 |
| steel, battens 16x32 | steel battens, 16mm deep | t | 0.0023 | 77600 | 175 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |

2369

| Polystyrene wall, timber frame | 50mm polystyrene cladding fixed directly to stud over reflective insulation. Bright side of foil facing stud cavity. 90mm timber stud frame with fibreglass insulation installed in cavity and painted 10mm plasterboard lining. | | | | |
|---------------------------------------|--|----------------|----------|--------------|------------------------|
| Materials | Description | Unit | Quantity | EWC (L/unit) | EW (L/m ²) |
| water-based paint | external finish | m ² | 1.0 | 16.1 | 16.1 |
| cement render | cement render, 4mm thick | m ² | 1.0 | 27 | 27 |
| polystyrene | polystyrene panel | m ³ | 0.05 | 18923 | 946 |
| aluminium reflective foil | reflective foil | m ² | 1.0 | 33.8 | 34 |
| timber softwood, framing 90x45 450C | 90 x 45 softwood framing 450C | m ³ | 0.012 | 13181 | 160 |
| fibreglass insulation | insulation, 90mm thick | m ³ | 0.078 | 1018 | 79 |
| plasterboard | internal lining | m ³ | 0.01 | 8560 | 86 |
| water-based paint | internal finish | m ² | 1.0 | 16.1 | 16.1 |

1365