

GL17 Verandah Beams – Light Sheet Roof C2

| Supporting Light Sheet Roofing Only – Roof Load Width (m) | | | | | | | |
|---|-----------------------------------|-----|-----|-----|-----|-----|-----|
| Size | Single Span - Roof Load Width (m) | | | | | | |
| | 0.6 | 1.2 | 1.8 | 2.4 | 3.6 | 4.8 | 6.0 |
| 90x42 | 2.7 | 2.3 | 1.9 | 1.6 | 1.3 | 1.2 | 1.0 |
| 115x42 | 3.6 | 2.9 | 2.4 | 2.1 | 1.7 | 1.5 | 1.3 |
| 140x42 | 4.4 | 3.6 | 3.0 | 2.6 | 2.1 | 1.8 | 1.6 |
| 165x42 | 5.1 | 4.2 | 3.5 | 3.1 | 2.5 | 2.2 | 1.9 |
| 190x42 | 5.9 | 4.9 | 4.1 | 3.5 | 2.9 | 2.5 | 2.2 |
| 240x42 | 7.3 | 6.0 | 4.9 | 4.2 | 3.5 | 3.0 | 2.7 |
| 265x42 | 7.7 | 6.4 | 5.2 | 4.5 | 3.7 | 3.2 | 2.9 |
| 290x42 | 8.2 | 6.7 | 5.5 | 4.7 | 3.9 | 3.4 | 3.0 |
| 140x65 | 5.0 | 4.1 | 3.6 | 3.2 | 2.6 | 2.3 | 2.0 |
| 190x65 | 6.6 | 5.6 | 4.9 | 4.4 | 3.6 | 3.1 | 2.8 |
| 240x65 | 7.6 | 6.9 | 6.2 | 5.6 | 4.6 | 4.0 | 3.5 |
| 290x65 | 8.5 | 7.8 | 7.2 | 6.8 | 5.5 | 4.8 | 4.3 |
| 140x80 | 5.4 | 4.4 | 3.9 | 3.5 | 2.9 | 2.5 | 2.3 |
| 190x80 | 6.8 | 6.1 | 5.3 | 4.8 | 4.0 | 3.5 | 3.1 |
| 240x80 | 7.8 | 7.1 | 6.6 | 6.1 | 5.1 | 4.4 | 3.9 |
| 290x80 | 8.7 | 8.0 | 7.5 | 7.0 | 6.1 | 5.3 | 4.8 |

| Size | Continuous Span - Roof Load Width (m) | | | | | | |
|--------|---------------------------------------|------|-----|-----|-----|-----|-----|
| | 0.6 | 1.2 | 1.8 | 2.4 | 3.6 | 4.8 | 6.0 |
| 90x42 | 3.1 | 2.3 | 1.9 | 1.6 | 1.3 | 1.2 | 1.0 |
| 115x42 | 4.0 | 3.0 | 2.4 | 2.1 | 1.7 | 1.5 | 1.3 |
| 140x42 | 4.9 | 3.7 | 3.0 | 2.6 | 2.1 | 1.8 | 1.6 |
| 165x42 | 5.8 | 4.3 | 3.5 | 3.1 | 2.5 | 2.2 | 1.9 |
| 190x42 | 6.6 | 5.0 | 4.1 | 3.5 | 2.9 | 2.5 | 2.2 |
| 240x42 | 8.4 | 6.1 | 5.0 | 4.3 | 3.5 | 3.1 | 2.8 |
| 265x42 | 9.3 | 6.7 | 5.4 | 4.7 | 3.8 | 3.3 | 3.0 |
| 290x42 | 10.1 | 7.2 | 5.9 | 5.1 | 4.2 | 3.6 | 3.2 |
| 140x65 | 5.6 | 4.6 | 3.7 | 3.2 | 2.6 | 2.3 | 2.0 |
| 190x65 | 7.7 | 6.3 | 5.1 | 4.4 | 3.6 | 3.1 | 2.8 |
| 240x65 | 9.6 | 8.0 | 6.5 | 5.6 | 4.6 | 4.0 | 3.5 |
| 290x65 | 10.7 | 9.7 | 7.8 | 6.8 | 5.5 | 4.8 | 4.3 |
| 140x80 | 6.1 | 5.1 | 4.2 | 3.6 | 2.9 | 2.5 | 2.3 |
| 190x80 | 8.2 | 7.0 | 5.7 | 4.9 | 4.0 | 3.5 | 3.1 |
| 240x80 | 9.8 | 8.9 | 7.2 | 6.2 | 5.1 | 4.4 | 3.9 |
| 290x80 | 10.9 | 10.1 | 8.7 | 7.5 | 6.1 | 5.3 | 4.8 |

Basic Loading Data:

Dead Load of roof: Light Sheet Roof with no ceiling, maximum 15kg/m²

(Covers standard residential roof materials, for roof pitch maximum 35deg)

Wind Load taken as C2 in accordance with AS4055 - 2012, Wind Loads for Housing

MagnaBeam GL beams are manufactured straight, without any camber built into the beams.

Verandah Beam deflection criteria is accordance with methods presented in AS1684.1-1999, and structural timber design in accordance with AS1720.1-2010

Notes:

1. Minimum bearing lengths for support of verandah beams: 45mm on end supports, and 65mm internal supports.
2. The span value shown is the distance between centrelines of supports.
3. For continuous spans, the adjacent beam spans may be different, but look up the larger of the spans, and the shorter span must be more than 50% of the larger span. If this rule is not met, then consider the verandah beams are simply supported, and look up the larger span in the single span table.
4. Deflection criteria: for dead load, the lesser of Span/360, or 10mm, and for Roof Live Loads, Span/250.
5. Where there are conflicts in design between loading codes (AS/NZS1170 series), timber code (AS1720.1-2010) and AS1684.1-1999, the loading codes and timber codes take preference.

The above span table values have been designed in accordance with the following codes:

AS1720.1-2010 Timber Design Code.

AS1170.0, .1-2002, AS1170.2-2011 Loading Codes for Limit State design, Live Loads, and Wind Loads respectively.

AS1684.1-1999 Design Criteria for Residential Timber Framing (used as a reference document only)