

SPAN TABLES FOR FLOOR BEAMS

SINGLE SPAN

| DL | LL | 3.0 M | | | 3.5 M | | | 4.0 M | | | 4.5 M | | | 5.0 M | | | 5.5 M | | | 6.0 M | | | |
|----|-----|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----|
| | | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | |
| 1 | 1.5 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 1 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 1 | 4 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 2 | 1.5 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 2 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 2 | 3 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 2 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | | | | | | | | | | | | | | | | | | | | N/A | N/A | N/A |

SPAN TABLES FOR FLOOR BEAMS

DOUBLE SPAN

| DL | LL | 3.0/2.0 M | | | 3.0/2.5 M | | | 3.0/3.0 M | | | 3.5/2.5 M | | | 4.0/1.5 M | | | 4.0/2.0 M | | | 4.5/1.5 M | | |
|----|-----|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|-----------|-------|-------|
| | | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/200 | L/250 | L/300 | L/300 | L/200 | L/250 | L/300 |
| 1 | 1.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 1 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 1 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 2 | 1.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 2 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| 2 | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |

NOTES

| Code | Name | No of plies | Thickness | Panel weight |
|------|--------|-------------|-----------|-------------------------|
| 1 | F 9601 | 3 Ply panel | 96 mm | 0.49 kN/m ² |
| 2 | F 1601 | 5 Ply panel | 160 mm | 0.816 kN/m ² |
| 3 | F 2201 | 7 Ply panel | 220 mm | 1.14 kN/m ² |



Australia's only manufacturer of Cross Laminated Timber

All loads in kN/m²

Service class I ($k_{def} = 0.6$)

All timber grades MGP10

DL - characteristic dead loads without material weight of the panel (already included in the calculation)

LL - characteristic live loads ($\Psi_s = 0.7, \Psi_t = 0.4, \Psi_c = 0.4$)

Capacity factor were chosen as $\Phi = 0.85$, product of modification taken as $k_{mod} = 0.8$.

Permitted deflection are: L/250 appearance at end deformation for quasi-permanent design situation, L/300 initial deformation, L/200 end deformation.

Calculation of effective cross-sectional values of 3 and 5 ply panels according the Gamma method.

Calculation of effective cross-sectional values of 7 ply panels according modified Gamma method.

The tables can be used for preliminary design, but they don't replace static calculation.