

## 4. TIMBER BEAMS

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### SAWN TIMBER BEAMS

The common sizes of sawn timber are:

100 x 60

125 x 50

150 x 50

200 x 50

250 x 50

300 x 50

Sawn timber is stress graded and colour-coded according to their strength. In fact "stress-graded timber" is load tested and its measured deflection assumed to be a measure of its strength.

## LAMINATED TIMBER BEAMS

Lamination can be used to make large timber members of high strength from smaller components of mostly of inferior strength. Traditionally lamination allows the best material to be located where strength is important while inferior material is used where strength is not required. Lamination also allows timber defects to be distributed throughout a member, (where is has little effect) rather than be concentrated in one critical location where it might cause the member to be rejected. In a relatively recent development, logs have been shaved and glued together to produce thick &ldquo;plywood&rdquo; which is then cut into beams (called Hyspan) of conventional timber sizes. Defects in the logs are averaged out over many plies of timber and the &ldquo;beams&rdquo; have a higher strength than ordinary sawn timber.

## OTHER TIMBER BEAMS

To make more efficient use of a natural resources such as timber, alternative forms of beams have been manufactured and find specialized applications. These include

Plywood webbed beams with sawn timber top and bottom chords and  
Steel webbed beams with sheet metal webs or latticed metal webs &ndash; the last being particularly useful in allow services to be reticulated in the floor depth.