

STRUCTURAL GRADES OF TIMBER

GRADE	COLOUR MARKS	BENDING STRENGTH (MPa)	BENDING STIFFNESS (GPa)	TYPICAL END USES
SG12 DRY	PURPLE (MSG)	28	12	Engineering grades where design requires higher strength and/or stiffness
SG10 DRY	GREEN (MSG)	20	10	Engineering grades where design requires higher strength and/or stiffness
SG8 DRY	BLACK (MSG)	14	8	Lintels, floor joists, roof beams, general framing and trusses
SG8 WET		11.7	6.5	Decking joists, verandah posts, pergola and other outdoor timbers
SG6 DRY	BLUE (MSG)	10	6	Lesser load bearing walls, truss webbing
SG6 WET		7.5	4.8	Wet treated house framing equal to SG6(dry) when dry

What is structural timber?

Structural Grade (SG), or framing grades, need to be verified or confirmed for stiffness and strength to ensure their suitability for structural construction purposes.

How are these grades produced?

Grade Verified timber can be produced by two methods, visual stress grading (VSG) and machine stress grading (MSG). For example, what is now called SG8 (Stress Graded 8 with an average stiffness of 8.0GPa) 90x45mm may be produced through a MSG or VSG, is tested as a joist on edge by bending the piece to measure stiffness and then a bending strength load of about 345kg applied to measure bending strength. This testing gives consumers confidence that Grade Verified timber will perform in service.