

# Timber

Civil Engineering

Why timber is graded, and what moves it.

Timber is graded because its strength depends on knots, slope of grain, density and moisture content.

**COMMON STRUCTURAL SOFTWOOD**  
**C16 or C24**

**HEATED INTERIOR MOISTURE**  
**Around 8 to 12%**

- Strength along the grain far exceeds across it
- Moisture content changes strength and size
- Visual and machine grading both give classes
- Softwood classes C, hardwood classes D
- Load duration changes the design capacity
- Service class reflects humidity in use

## LOOK FOR IT

Timber built in wet and dried in service will shrink, twist and split.

Educational reference. Strength classes, service classes and load duration factors come from the timber design code.