

A major consideration when building any project is a prediction of how long the finished structure will last. Whilst insects, decay or rotting organisms and marine borers can all attack wood, some species resist attack better than others. The durability or resistance of a species to attack by wood destroying organisms is an indication of how long that species will last when it is exposed to a defined set of exposure conditions.

Australian Standard AS5604 – 2005, **Timber – Natural durability ratings**, lists the natural durability of more than 250 commercially available Australian and imported timber species. The ratings provide a relative comparison of the performance of untreated heartwood and actual performance is affected by factors such as: the presence of wood preservative chemicals; building techniques and detailing; and climatic conditions where the timber is to be used.

The classification system used in the Australian Standard is a probable life expectancy of untreated heartwood. The Standard lists in-ground and above-ground durability as well as information on whether or not a particular species is susceptible to attack by the Lyctus beetle, is resistant or non-resistant to termite attack, and whether it is resistant to marine borers.

Natural durability classification:

Durability class	Probable in-ground life expectancy (years)	Probable above-ground life expectancy (years)
1	More than 25	More than 40
2	15 to 25	15 to 40
3	5 to 15	7 to 15
4	0 to 5	0 to 7

A timber species is allocated into a Durability Class based on data from field trials. If there is no data available, then experience and expert opinion are used. The Durability Class of a species may be changed as further data becomes available.

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