

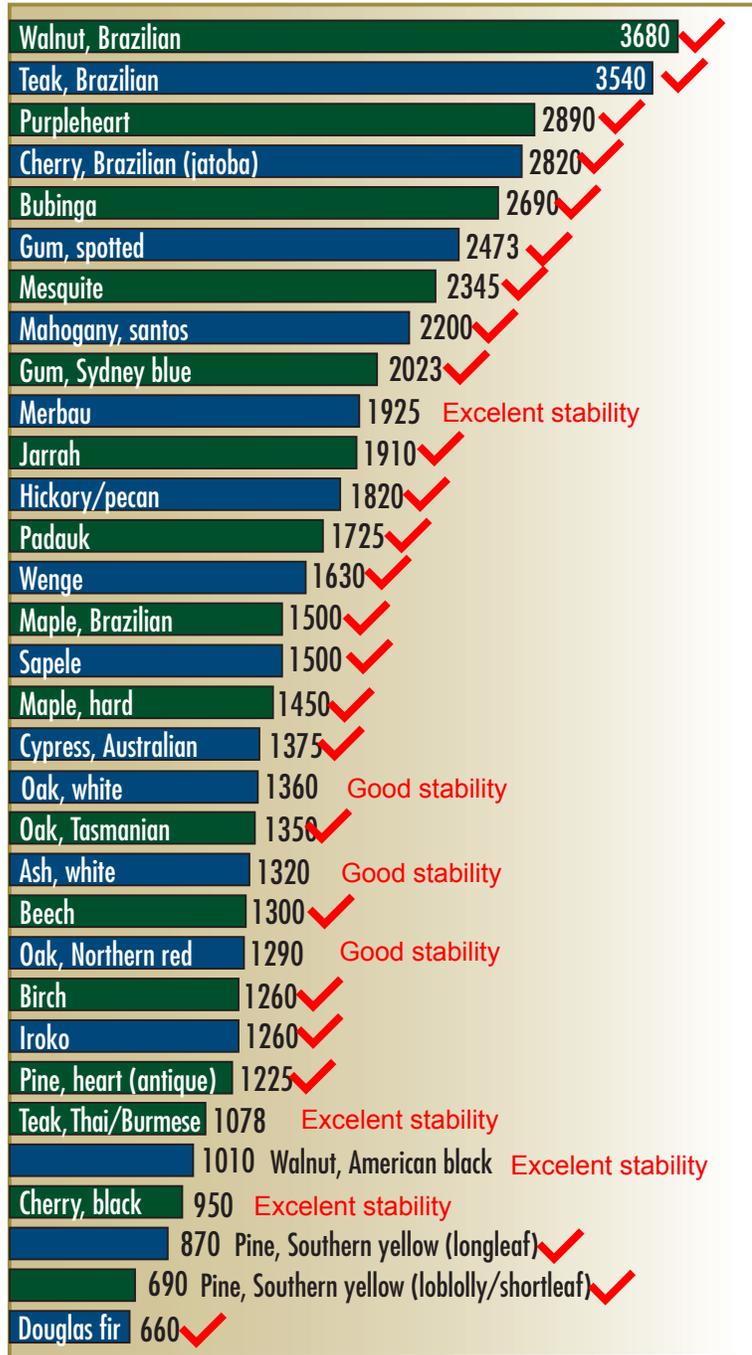
## RELATIVE HARDNESS OF SELECTED WOOD FLOORING SPECIES

(Ranked by Janka hardness rating)

The Janka (or side) hardness test measures the force required to embed a .444-inch steel ball to half its diameter in wood. It is one of the best measures of the ability of a wood species to withstand denting and wear. By the same token, it also is a good indicator of how hard or easy a species is to saw or nail. Northern red oak, for example, has a Janka hardness rating of 1290. Spotted gum, with a rating of 2473, is nearly twice as hard. If you're accustomed to working with red oak and decide to tackle a job with spotted gum, you can expect it to be much harder to cut and nail.

A rating is not included for bamboo, as bamboo flooring varies greatly between different manufacturers' products and between vertical and horizontal construction. Likewise, a rating is not included for cork flooring.

- Source: Hardness ratings for most species taken from the U.S. Dept. of Agriculture, Forest Service, Forest Products Laboratory, Center for Wood Anatomy Research Web site [www2.fpl.fs.fed.us/TechSheets/techmenu.html](http://www2.fpl.fs.fed.us/TechSheets/techmenu.html). Bubinga value taken from Wood Handbook: Wood as an Engineering Material (Forest Products Society, 1999). Padauk and Brazilian maple values were provided by Wood Flooring International. Spotted gum, Sydney blue gum and Tasmanian oak values were provided by Boral Timber. The heart pine rating was provided by Mountain Lumber. The mesquite rating was provided by Mesquite Products of Texas.
- Douglas fir rating is an average of ratings for Coast, Interior West and Interior North species.
- Values for Brazilian cherry, purpleheart and Thai/Burmese teak represent average values.



While Janka values give a general sense of hardness, many other factors also contribute to a wood floor's durability, including the type of cut (i.e. plainsawn, quartersawn), denseness of cell structure, and finish used.