

BRITISH COLUMBIA WOOD SPECIES

COMMON SPECIES USED IN VIETNAM

Comparing Wood Species



(*Pseudotsuga menziesii*)



(*Tsuga heterophylla*)



(*Picea glauca*)



(*Thuja plicata*)



(*Hevea brasiliensis*)



(*Quercus alba*)



(*Populus*)



(*Pinus radiata*)

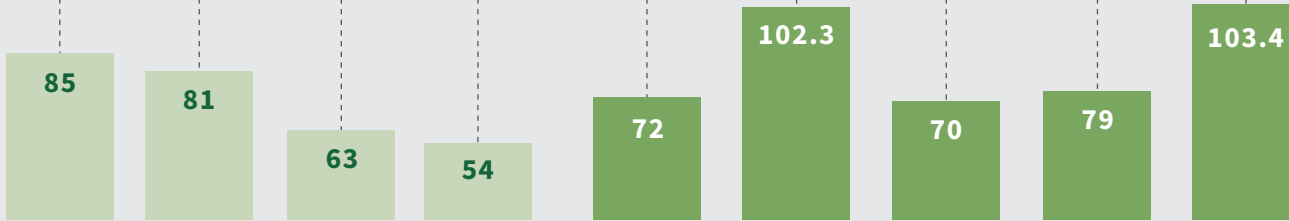


(*Fraxinus americana*)

PHYSICAL PROPERTIES

STRENGTH

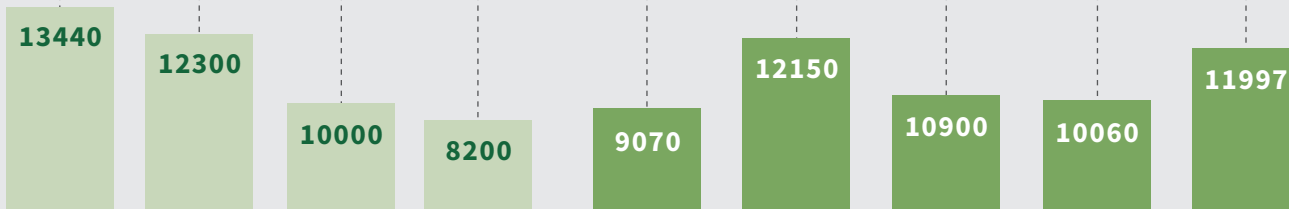
Modulus of Rupture (MOR)
(air dry) Mpa



Douglas-Fir and Western Hemlock are the strongest species from British Columbia with values close to those of common species used in Vietnam.

STIFFNESS

Modulus of Elasticity (MOE)
(air dry) Mpa



In terms of stiffness, Douglas-Fir and Western Hemlock perform better than Teak.

HARDNESS

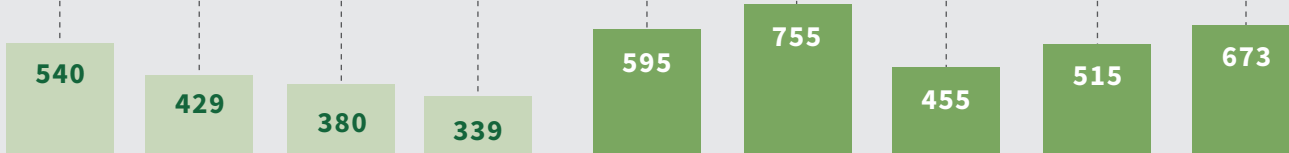
(side grain) N



While British Columbia (B.C.) species tend to be less hard than common species used in Vietnam, they still perform well in many applications due to their high strength to weight ratio.

DENSITY

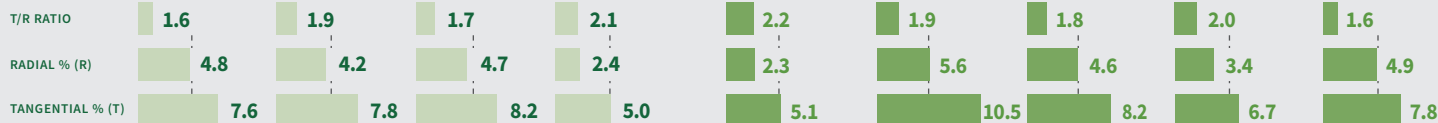
(air dry) kg/m³



Lower density of B.C. wood species can be an advantage by enabling larger pieces with less weight than traditional woods. The high strength to weight ratio of B.C. species enhances its appeal.

STABILITY (SHRINKAGE)

(air dry)



References

- 1) Wood Handbook- Wood as an Engineering Material, 2010, Centennial Edition, Forest Products Laboratory, USA.
- 2) Technology transfer factsheets, Forest Products Laboratory, USA
- 3) Sustainable American Hardwoods: a guide to species. American Hardwood Export Council

