

# Workability

	MACHINING	RESISTANCE TO SPLITTING	JOINT STRENGTH	GLUING	SANDING/POLISHING	FINISHING	SPECIFIC GRAVITY	WEIGHT PER CUBIC FOOT	WEIGHT PER 1000 BD. FT.	HARDNESS	SHRINKAGE VOLUME (%)	STATIC BENDING	IMPACT BENDING	COMPRESSION	DIMENSIONAL STABILITY
Western Alder	9	8	9	10	10	10	.41	28.7	2390	5	12.6	6	5	6	8
Western Red Oak	9	9	8	8	9	9	.57	39.8	3320	8	9.7	6	5	8	9
Pacific Madrone	10	9	8	8	9	6	.65	45.4	3785	10	17.4	6	6	8	5
Tanoak	8	9	9	7	8	8	.66	46.1	3930	9	14.9	10	8	8	7
Bigleaf Maple	8	8	8	8	8	8	.48	33.6	2850	5	11.6	7	6	6	8
Oregon White Oak**	7	8	9	7	8	7	.72	50.3	4190	9	13.4	6	6	9	8
Golden Chestnut*	6	7	7	8	8	8	.46	32.2	2680	6	13.2	7	7	5	7
Northern Poplar*	4	6	5	6	4	4	.35	24.5	2040	3	12.4	4	4	3	5
Oregon Ash*	7	8	7	7	7	8	.55	38.4	3200	8	13.2	9	8	7	7
Sycamore*	7	7	6	6	5	5	.49	34.3	2850	6	14.1	7	9	5	6
California Black Walnut*	9	6	6	7	9	8	.55	38.4	3200	7	12.8	9	8	6	9
Western Birch	9	7	8	9	9	8	.60	32	3250	7	11.5	8	6	7	8

\*\* Similar figures for California White Oak.  
\* Species sheets not available.

Values obtained from combined consideration of USDA Forest Products Lab, Oregon State University Forest Research Lab, Pittsburgh Testing Lab and years of practical applications.

## MACHINING

Average of 5 operations: Planing, shaping, turning, boring and mortising. Highest score is 10.

## RESISTANCE TO SPLITTING

Resistance to splitting from nail or screw. Highest score is 10.

## JOINT STRENGTH

Average of side and end grain screw holding ability measured in shear factor and converted for comparison. Highest score is 10.

## GLUING

Bond strength. Highest score is 10.

## SANDING/POLISHING

Resistance to fuzzing. Highest score is 10.

## FINISHING

Ability to absorb stain evenly, take oil and water-based finishes without bleaching. Highest score is 10.

## SPECIFIC GRAVITY

Green volume, oven dry weight.

## WEIGHT PER CUBIC FOOT – Lbs.

At 12% moisture content.

## WEIGHT PER 1000 BD. FT. – Lbs.

At 12% moisture content, 4/4 rough.

## HARDNESS

Pressure to bury half of 1.13 cm ball perpendicular to grain. Highest score is 10.

## SHRINKAGE VOLUME (%)

Percent of across grain shrinkage from green to 6% moisture content.

## STATIC BENDING

Resistance to rupture. Highest score is 10.

## IMPACT BENDING

Resistance to fiber stress. Highest score is 10.

## COMPRESSION

Crushing strength, resistance to weight applied parallel to grain. Highest score is 10.

## DIMENSIONAL STABILITY

Resistance to expansion and contraction due to climate variations. Highest score is 10.



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