

Notes from the Shopsmith Woodworking Academy

Properties of Cabinet Lumber – General Characteristics

The chart below is based on general characteristics and averages. For example, pounds-per-cubic-foot are given for samples of dry wood. However, samples cut from the same tree and reduced to the same moisture content can vary.

The *Planing & Jointing* column relates to the ease of either operation with the respective wood. *Smooth Sanding* refers to how well the wood sands and the recommended sandpaper grit to use for the scratchless and smooth sanding step.

Under *Stain Type*, “Oil” refers to a penetrating oil stain...and “Wiping” to a wiping stain. “NGR” Means a non-grain-raising stain. All other heads should be self-explanatory.

Wood species	Weight # . per cubic ft	Hardness	Planing & Jointing	Turning	Smooth Sanding	Natural Color	Usual Grain Figure	Stain Type	Stain Color	Filler Color	Natural Finish Preferred
Ash	35	Medium	Good	Fair	Best 100	White to Brown	Plain or Fiddleback	Any	Any	White or Brown	Yes
Basswood	24	Soft	Good	Poor	Poor 150	Cream	Very mild	NGR	Red or Brown	None	No
Birch	39	Hard	Good	Good	Fair 150	Cream	Mild	Any	Walnut or Mahogany	Natural or Brown	Yes
Cedar (Aromatic Red)	23	Soft	Poor	Fair	Good 120	Heart: Red Sap: Green	Knotty	None	None	None	Yes
Cherry	36	Medium	Excellent	Excellent	Best 150	Red to Brown	Good	Water	Red or Brown	Red to Black	Yes
Cypress	29	Soft	Good	Poor	Fair 36	Heart: Brown Sap: cream	Plain or Figured	Water, Oil or Wiping	Red or Brown	None	Yes
Mahogany	35	Medium	Good	Good	Good 150	Brown to Red-Brown	Stripe	Water	Red or Brown	Red to Black	Yes
Maple	41	Hard	Fair	Good	Good 150	Cream	Varied	Water and Wiping	Maple	None	Yes
Oak (Red)	39	Hard	Excellent	Good	Best 36	Red Brown	Plain or Flake	NGR	Green toner	Brown	No
Oak (White)	40	Hard	Excellent	Good	Best 36	White to Light Brown	Plain or Flake	NGR	Brown	Brown	Yes
Pine (White)	25	Soft	Good	Good	Fair 36	White to Cream	Mild	Water or Oil	Brown Only	None	No
Poplar	29	Soft	Good	Good	Poor 150	White to Cream-Green to Brown	Occasional Dark Stripe	NGR	Brown	None	No
Redwood	29	Soft	Good	Fair	Poor 36	Red	Mild - Straight Grain	Red only for toning	Red only for toning	None	No
Walnut	36	Medium	Good	Very Good	Best 150	Heart: Brown Sap: Cream	Varied	Water	Walnut	Brown to Black	Yes
Willow	30	Soft	Fair	Fair	Fair 120	White to Brown	Varied	Any	Brown to Red	Dark	Yes