



Liriodendrontulipifera

Family: Magnoliaceae

Yellow Poplar

Yellow Poplar (*Liriodendron* spp.) contains 2 species, the Yellow Poplar of North America (*L. tulipifera*) and a Chinese species (*L. chinensis*). Both species look alike microscopically. The name *liriodendron* is derived from the Greek lily and tree, because of the showy “lilylike” flowers (the flowers look more like tulips).

Liriodendron tulipifera-American whitewood, basswood, blue poplar, canar poplar, canarywood, canoe-wood, cucumbertree, hickory poplar, liriodendron, old wives shirt, poplar, popple, saddle-tree, sap poplar, secoya, southern yellow poplar, tulipia, tulip poplar, tuliptree, tulipwood, white poplar, whitewood

Distribution

Most of the eastern United States, from Massachusetts west to Illinois, Arkansas and Louisiana, south to the Gulf Coast and central Florida.

The Tree

Yellow Poplar trees reach heights of 160 feet with a diameter of 8 feet. It is probably the tallest hardwood tree in the eastern US.

The Wood

General

Yellow Poplar sapwood is white, sometimes with stripes, while the heartwood is usually tan, but can range from greenish brown to dark green, purple, black, blue and yellow. The wood is straight grained, uniform in texture and moderate to light weight. Among commercially important hardwoods in the US, it ranks in the lower third of the range of the following properties: specific gravity, bending strength, toughness, impact resistance, work to maximum load, crushing strength, fiber stress at proportional limit, shear strength, tensile strength and side hardness.

Mechanical Properties (2-inch standard)

	Specific gravity	MOE x10 ⁶ lbf/in ²	MOR lbf/in ²	Compression		WML ^a in-lbf/in ³	Hardness lbf	Shear lbf/in ²
				Parallel lbf/in ²	Perpendicular lbf/in ²			
Green	0.40	1.22	6,000	2,660	270	7.5	440	790
Dry	0.42	1.58	10,100	5,540	500	8.8	540	1,190

^aWML = Work to maximum load.
Reference (59,98).

Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	8.2	5.7	2.4
Radial	4.6	3.2	1.3
Volumetric	12.7	9.8	4.1
Yellow Poplar wood is intermediate in its tendency to warp, with initial shrinkage being large. It stays in place well after drying and dries quickly, with minimal loss of quality in all conditions. References: 0% MC (98), 6% and 20% MC (90).			

Kiln Drying Schedules^a

Condition	Stock				
	4/4, 5/4, 6/4	8/4	10/4	12/4	16/4
Standard	T11-D4	T10-D3	T9-C3	T7-C2	T5-C2
^a References (6, 86).					

Working Properties: Yellow Poplar has the reputation of being one of the easiest of all hardwoods to work with hand and machine tools. It works well in planing, turning, gluing and boring. It is average in mortising and nail and screw holding abilities. It is poor in shaping and sanding. It holds stain and paint well.

Durability: No information available at this time.

Preservation: No information available at this time.

Uses: Lumber, veneer, pulpwood, furniture, plywood, interior finish, dimension stock, gunstocks, musical instruments, toys, novelties, hatblocks, sporting goods, pallets, shipping crates, slack cooperage, particle board.

Toxicity It may cause allergic reactions or dermatitis. (3, 6 & 13)

Additional Reading and References Cited (in parentheses)

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