



Salix nigra

Family: **Salicaceae**

Black Willow

Willow (*Salix* sp.) is composed of 170 to 400 species native to: Eurasia [60], South America [1], Central America [19] and North America [87]. All species look alike microscopically.

Salix nigra-Dudley Willow, Goodding Willow, Southeastern Black Willow, Swamp Walnut, Tall Black Willow, Western Black Willow

Distribution

Throughout the eastern United States, from the Atlantic coast west to Minnesota, Iowa, Nebraska, Kansas, Oklahoma and Texas.

The Tree

Black Willow trees reach heights of 140 feet, with a diameter of 4 feet.

The Wood

General

The sapwood of Black Willow is light tan, while the heartwood is pale reddish brown to grayish brown. It has no characteristic odor or taste. It is soft, but does not splinter when dented. It is uniform in texture, and weak in bending and crushing. It rates moderately high in shock resistance, low in nail holding ability, but does not split readily due to its interlocked grain.

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	0.36	0.79	4,800	2,040	180	11.0	–	680
Dry	0.39	1.01	7,800	4,100	430	8,800	–	1,250
^a WML = Work to maximum load. Reference (98).								

Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	8.7	6.5	2.7
Radial	3.3	2.1	0.9
Volumetric	13.9	11.5	4.8
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	T10-F4	T8-F3	–	–	–
^a References (6, 86).					

Working Properties: Black Willow is classed as one of the most difficult woods to machine. It glues very well and readily accepts finishes.

Durability: The wood is not durable under conditions favorable to decay, rating poorly.

Preservation: No information available at this time.

Uses: Factory lumber, veneer, box lumber, pulpwood, furniture, paneling, interior trim, cabinetry, artificial limbs, fiber board, slack cooperage, excelsior, novelties, toys, wooden shoes, polo balls and carvings.

Toxicity: No information available at this time.

Additional Reading and References Cited (in parentheses)

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