



Pinus banksiana Lamb.

Family: Pinaceae

Jack Pine

The genus *Pinus* is composed of about 100 species native to temperate and tropical regions of the world. Wood of pine can be separated microscopically into the white, red and yellow pine groups. The word *pinus* is the classical Latin name. The word *banksiana* is used in dedication to Joseph Banks (1743-1820), director of Kew Gardens, England, botanical collector, and patron of sciences, to whom its author was obliged for first knowledge of it.

Other Common Names: Banks-den, Banksian pine, banksiana-tall, Banks-pijn, banks-tall, black jack pine, black pine, blackjack pine, British Honduras pitch pine, bull pine, Canada horn pine, Canada horn-cone pine, Canadian horn pine, check pine, chek pine, cypres, cypress, eastern jack-pine, grey pine, Hudson Bay pine, jack pine, jack-pine, juniper, labrador pine, northern scrub pine, pin chetif, pin de Banks, pin des rochers, pin gris, pin gris d'Amerique, pino banksiano, princess pine, scrub pine, Sir Joseph banks pine, Sir Joseph Banks pine, spruce pine, zwerg-kiefer.

Distribution: Jack pine is native to Cape Breton Islands, Nova Scotia, Prince Edward Island, New Brunswick, Maine and central Quebec, west to northern Ontario, northern Manitoba, southwestern Keewatin, and western Mackinaw, south to extreme northwestern Indiana, Michigan, southern Ontario, northern New York and New Hampshire.

The Tree: Jack pine trees normally reach heights of 65 feet, with diameters of 10 inches. One can find exceptional trees that are 100 feet tall with a diameter of 2 feet.

General Wood Characteristics: The sapwood of jack pine is nearly white, while the heartwood is light brown to orange. The sapwood may make up one-half or more of the volume of a tree. The wood has a rather coarse texture and is somewhat resinous. It is moderately light in weight, moderately low in bending strength and compressive strength, moderately low in shock resistance, and low in stiffness. It also has moderately small shrinkage. Lumber from jack pine is generally knotty. In lumber, jack pine is sometimes included along with other pines with which it grows, including red pine and eastern white pine.

Mechanical Properties (2-inch standard)

	Specific gravity	MOE GPa	MOR MPa	Compression		WML ^a KJ/m ³	Hardness N	Shear MPa
				Parallel MPa	Perpendicular MPa			
Green	0.40	7.38	41.4	20.3	2.07	49.6	1780	5.17
Dry	0.46	9.31	68.3	39.0	4.00	57.2	2530	8.07

^aWML = Work to maximum load.
Reference (56).

Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	6.6	NA	NA
Radial	3.7	NA	NA
Volumetric	10.3	NA	NA
References: (56).			

Kiln Drying Schedules^a

Conventional temperature/moisture content-controlled schedules^a

Condition	4/4, 5/4 stock	6/4 stock	8/4 stock	10/4 stock	12/4 stock	British schedule 4/4 stock
Lower grades	T9-C4	NA	T9-C3	NA	NA	NA
Upper grades	T12-B4	NA	T11-B4	T7-A3	T7-A3	L

^aReference (28, 185).

Conventional temperature/time-controlled schedules^a

Condition	Lower grades			Upper grades			
	4/4, 5/4 stock	6/4 stock	8/4 stock	4/4, 5/4 stock	6/4 stock	8/4 stock	12/4, 16/4 stock
Standard	291	291	291	291	NA	NA	NA

^aReferences (28, 185).

High temperature^a

Condition	4/4, 5/4 stock	6/4 stock	8/4 stock	Other products
Standard	400	400	400	Studs/412

^aReferences (28, 185).

Working Properties: Jack pine ranks average in workability with tools. It has lower nail holding capacity than red pine, and it is more liable to split when nailed.

Durability: Jack pine’s durability is very limited when exposed to conditions favorable to decay (9).

Preservation: Penetration with preservatives is difficult (9).

Uses: Jack pine is used for pulpwood, box lumber, pallets, and fuel. Less important uses include railroad crossties, mine timber, slack cooperage, poles, and posts.

Toxicity: In general, working with pine wood may cause dermatitis, allergic bronchial asthma or rhinitis in some individuals (4,7&15).

Additional Reading and References Cited (in parentheses)

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