



## Pinus resinosa Ait.

### Family: Pinaceae

### Red 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 *resinosa* means resinous.

**Other Common Names:** Amerikansk rod-tall, Canadese rode pijn, Canadian pine, Canadian red pine, eastern red pine, hard pine, northern pine, Norway pine, Ottawa Red pine, pig iron pine, pig-iron-norway, pin de norvege, pin resineux, pin rouge, pin rouge d'Amerique, pin rouge du Canada, pino rojo americano, pino rosso americano, pitch pine, Quebec pine, red deal, red pine, shellbark Norway pine, tannub ahmar, yellow deal.

**Distribution:** Red pine is native to Cape Breton Island, Nova Scotia, Prince Edward Island, New Brunswick, southern Quebec and Maine, west to central Ontario and southeastern Manitoba, south to southeastern Minnesota and east to Wisconsin, Michigan, southern Ontario, northern Pennsylvania, northern New Jersey, Connecticut and Massachusetts. Also locally in northern Illinois, eastern West Virginia and Newfoundland.

**The Tree:** Red pine trees reach heights of 80 feet, with diameters of 3 feet. A record tree was reported at 150 tall, with a diameter of 5 feet. Long lived stands may contain as old as 200 years.

**General Wood Characteristics:** The sapwood of red pine is nearly white to yellow, while the heartwood varies from red to reddish brown. It has an oily feel and has a resinous odor. It is straight, even grained, medium textured and moderately heavy. It is intermediate in density between longleaf and eastern white pine. It is also relatively strong and stiff and is moderately high in shock resistance. It is moderately durable for uses not in contact with the ground and is easy to treat with preservatives. It has moderately large shrinkage, but is not difficult to dry. It is easy to work with hand tools, holds nails and screws well, finishes well, but has difficulty holding paint.

#### Mechanical Properties (2-inch standard)

	Specific gravity	MOE x10 <sup>6</sup> lbf/in <sup>2</sup>	MOR lbf/in <sup>2</sup>	Compression		WML <sup>a</sup> in-lbf/in <sup>3</sup>	Hardness lbf	Shear lbf/in <sup>2</sup>
				Parallel lbf/in <sup>2</sup>	Perpendicular lbf/in <sup>2</sup>			
Green	0.41	1.28	5800	2730	260	6.1	340	690
Dry	0.51	1.63	1100	6070	600	9.9	560	1210

<sup>a</sup>WML = 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	7.2	5.8	2.4
Radial	3.8	3.7	1.5
Volumetric	11.3	9.2	3.8
References: (56, 192).			

### Kiln Drying Schedules<sup>a</sup>

#### Conventional temperature/moisture content-controlled schedules<sup>a</sup>

Condition	4/4, 5/4 stock	6/4 stock	8/4 stock	10/4 stock	12/4 stock	British schedule 4/4 stock
Standard	TT12-B4	NA	T11-B3	T7-A3	T7-A3	L

<sup>a</sup>Reference (28, 185).

#### High temperature<sup>a</sup>

Condition	4/4, 5/4 stock	6/4 stock	8/4 stock	Other products
Standard	410	NA	411	NA

<sup>a</sup>References (28, 184).

**Working Properties:** It is easy to work with hand tools, holds nails and screws well, finishes well, but has difficulty holding paint.

**Durability:** It is moderately durable for uses not in contact with the ground.

**Preservation:** It is easy to treat with preservatives

**Uses:** poles, pilings, cabin logs, posts, lumber for construction (girders, beams, joists, studs, stair parts and trusses), house siding, framing, shelving, trim millwork, lawn and garden furniture, woodenware, novelties, toys, pulp and paper. The trees are planted for wind breaks and Christmas trees. The bark is used for tanning and the old stumps are used for turpentine and rosin production.

**Toxicity:** In general, working with pine wood may cause dermatitis, allergic bronchial asthma or rhinitis in some individuals (4, 9 & 14).

#### Additional Reading and References Cited (in parentheses)

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