



Pinus flexilis James

Family: Pinaceae

Limber 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 *flexilis* means flexible or limber.

Other Common Names: Bull pine, Californische buigzame pijn, hallarin, hange kiefer, jack pine, limber pine, limber-twig pine, mjuk-tall, pin blanc de l'ouest, pin pliable de l'ouest, pino enano, pino flessibile, pino flexible, pino huiyoco, pino nayar, Rocky Mountain pine, Rocky Mountain white pine, western white pine, white pine.

Distribution: Limber pine is native to the Rocky Mountain region, from southwestern Alberta and southeastern British Columbia, south in the mountains of Montana, Idaho, Nevada and central and southern California, east to northern New Mexico and north to Colorado and Wyoming. Also locally in northeastern Oregon, northern Arizona, western Nebraska, the Black Hills of South Dakota and southwestern North Dakota.

The Tree: Limber pine trees reach heights of 50 feet, with diameters of 2 feet. Exceptional trees have been reported to be 80 feet tall and 4 feet in diameter.

General Wood Characteristics: The wood of limber pine is light, soft, close grained and is easily worked with tools. The sapwood is narrow and a creamy white, while the heartwood is brownish to orange-yellow and may turn reddish brown upon exposure to the air.

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	0.37	0.80	5200	2410	320	5.2	310	740
Dry	0.42	1.17	9100	5290	720	6.8	430	800

^aWML = Work to maximum load.
Reference (153).

Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	5.1	NA	NA
Radial	2.4	NA	NA
Volumetric	8.2	NA	NA

References: (153).

Kiln drying schedules: No information available at this time.

Working Properties: Limber pine works well with tools.

Durability: No information available at this time.

Preservation: No information available at this time.

Uses: Boxes, railroad ties, poles, mine timbers, locally for fuel.

Toxicity: In general, working with pine wood may cause dermatitis, allergic bronchial asthma or rhinitis in some individuals (3,6&8).

Additional Reading and References Cited (in parentheses)

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