



Pinus elliottii Englem.

Family: Pinaceae

Slash Pine

The genus *Pinus* is composed of about 95 species native to temperate and tropical regions of the world. There are 60 species in the New World (North America and South America) and 35 in the Old World (Eurasia and northern Africa). In the New World, there are 4 native to the West Indies, 5 in Central America, 38 in Mexico and 37 in the United States and Canada. The wood of pine can be separated microscopically into the white, red, yellow and the foxtail/pinyon pine groups. Slash pine is in the yellow pine group. The word *pinus* is the classical Latin name and *elliottii* is used in honor of Stephen Elliott (1771-1830), botanist and banker of South Carolina and author of “Sketch of the Botany of South-Carolina and Georgia”. Slash pine has two recognized varieties, the typical slash pine (*Pinus elliottii* Engelm. var. *elliotti*) and South Florida slash pine (*Pinus elliottii* var *densa* Little & Dorman).

Other Common Names: American pitch pine, bastard pine, British Honduras pitch pine, Cuba pine, Dade County pine, Dade County slash pine, Elliott-tall, Florida pine, Florida southern pine, Florida-tall, Gulf Coast pitch pine, longleaf, longleaf pine, longleaf pitch pine, longleaf yellow pine, meadow pine, Nicaraguan pine, pin de la Floride du sud, pinavete, pino de Florida del sur, pino di Florida del sud, pino grasso, pino pece, pino tea, pitch pine, pitchpin American, saltwater pine, she pine, South Florida slash pine, Southern Florida pine, southern Florida slash pine, southern pine, southern yellow pine, spruce pine, swamp pine, thong, yellow pine, yellow slash pine, Zuid-Florida pijn.

Distribution: Slash pine is native to the coastal plains from southern South Carolina to southern Florida (also the lower Florida Keys), west to southeast Louisiana.

The Tree: Slash pine trees reach heights of 70 feet (21.34 m) with a 2 foot (0.61 m) diameter.

General Wood Characteristics: The sapwood of slash pine is a yellowish white, while the heartwood is a reddish brown. It is very strong and heavy, very stiff, hard and moderately high in shock resistance. It has straight grain, is medium in texture and relatively difficult to work with hand tools. It ranks high in nail holding capacity, but is difficult to glue.

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	0.54	10.5	60.0	26.3	3.65	66.2	NA	6.62
Dry	0.66	13.6	112	56.1	7.03	91.0	NA	11.58

^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	7.6	6.2	2.6
Radial	5.4	4.4	1.8
Volumetric	12.1	9.8	4.1
References: (185, 56, 192).			

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
Standard	T13-C6	T12-C5	T12-C5	T10- C4	T10- C4	L
Highest Quality	279	279	279	T10- C4	T10- C4	NA

^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	281	NA	282	281	NA	282	284

^aReferences (28, 185).

High temperature^a

Condition	4/4, 5/4 stock	6/4 stock	8/4 stock	Other products
Standard	401/402	NA	NA	403 (2 by 4's)

^aReferences (28, 185).

Working Properties: Slash pine is difficult to work with hand tools, but ranks high in nail holding capacity.

Durability: It is rated as moderately resistant to heartwood decay (187).

Preservation: The sapwood is easy to impregnate with preservatives, while the heartwood is difficult. Pressure treatments may extend durability and usefulness considerably.

Uses: The wood is used for heavy construction (bridges, trestles and dock works), pulp, plywood, utility poles, piling, railroad ties, mine timbers. The sap is used for rosin and turpentine.

Toxicity: In general, working with pine wood may cause dermatitis, allergic bronchial asthma or rhinitis in some individuals (69, 150 & 207).

Additional Reading and References Cited (in parentheses)

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