



## *Chamaecyparis lawsoniana*

**Family: Cupressaceae**

**Port-Orford-Cedar**

The genus *Chamaecyparis* is composed of six species native to Japan, Taiwan, and both coasts of North America. The word *chamaecyparis* is derived from the Greek *chamai* (dwarf) and *kuparissos* (cypress). The term *lawsoniana* is in dedication to Peter Lawson and Sons, nurserymen of Edinburgh, who introduced this species into cultivation. The seeds were purchased from William Murray, who collected them in California in 1854 and whose brother (A. Murr.) named the species. The other two North American species are Atlantic white cedar (*Chamaecyparis thyoides*) and Alaska cedar (*Chamaecyparis nootkatensis*).

*Chamaecyparis lawsoniana*-Adel-cypress, Californische cypres, cedar, cedro de Oregon, cedro de Puerto Orford, cedro port orford, cipres de Lawson, cipresso di California, cipresso di Lawson, cypres de Lawson, gewone cypres, ginger pine, lawson chamaecyparis, Lawson cypress, lawson cypress, Lawson's cypres, matchwood, Oregon cedar, Oregon cypress, Oregon zeder, pencil cedar, Port-Orford, Port-Orford-cedar, Port-Orford white cedar, scheinzypresse, spruce gum, white cedar, white cypress.

### Distribution

Port-Orford-cedar is native to a narrow zone near the Pacific Coast from southwest Oregon (Lane County and Coos Bay) south to northwest California (Mad River and locally in the Mount Shasta area).

### The Tree

Port-Orford-cedar trees reach heights of 200 feet, with diameters of 6 feet.

### The Wood

#### General

The sapwood of Port-Orford-cedar varies from nearly white to a pale yellowish brown and is 1 to 3 inches wide. The heartwood is yellowish white to pale yellowish brown. The wood has a fine, even texture and the grain is even and straight. It has a characteristic odor (from volatile oils), described as “gingerlike” and a bitter, spicy taste. It is moderately light in weight and is stiff, strong, hard and somewhat shock resistant. It shrinks slightly when dried, with little tendency to warp. It works well with tools, has a good electrical resistance and is moderately resistant to acids. The heartwood is highly resistant to decay. It holds paint and polishes well. It weathers to a light gray, with a silvery sheen, without checks.

#### 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	0.39	1.30	6,600	3,140	300	7.4	380	840
Dry	0.43	1.70	12,700	6,250	720	9.1	720	1,370

<sup>a</sup>WML = Work to maximum load.  
Reference (12).

## Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	6.9	5.5	2.3
Radial	4.6	3.7	1.5
Volumetric	10.1	8.1	3.4

References: 0% MC (12),  
6% and 20% MC (11).

## 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	T11-B4	NA	T10-B3	NA	NA	J

<sup>a</sup>Reference (2,10,5).

Conventional temperature/time-controlled schedules<sup>a</sup>

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	290	NA	288	290	296	296	NA

<sup>a</sup>References (2,10).

High temperature<sup>a</sup>

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

**Working Properties:** Port-Orford-cedar works well with tools.

**Durability:** It is rated as resistant or very resistant to heartwood decay (12).

**Preservation:** The heartwood is moderately resistant to preservative treatment, while the sapwood is permeable (5).

**Uses:** Arrow shafts, storage battery separators, venetian blind slats, sashes, doors, interior finish millwork, mothproof linings for boxes and closets, boats, matches, general construction, water tanks, bridges, dock planking, railroad ties and mine timbers.

**Toxicity:** Continual inhalation of the volatile oil in this wood can cause kidney problems (diuresis). May also cause allergic bronchial asthma and/or rhinitis. (4,6,7&14)

## Additional Reading and References Cited (in parentheses)

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