

## WESTERN RED CEDAR *Thuja plicata* D. Don

Extract from Bootle "Wood In Australia Types, properties and uses." 1983 - 2003 McGraw-Hill

1 A large softwood, the largest of the North American cedars, occur-ring in British Columbia, Washington, Oregon, Idaho and Montana.

2 Heartwood variable, from pale brown to dark brown. Sapwood to 20 mm wide, is yellowish white. Texture fine but uneven due to the prominent growth rings. Grain straight. Not resinous. The degree of darkness of the wood is not indicative of the amount of extractives present. The extractives most helpful in providing resistance to decay are rather insoluble in water but are corrosive to metals such as copper and iron.

3 ADD about 350 kg/m'.

4 Easy to dry. Shrinkage about 1.5 per cent radial, 3 per cent tangential.

5 Easy to work but the sanding dust can be very irritant to the breathing passages so a well-ventilated workshop is essential. It is rather brittle so care is needed in working end grain. Since it is very soft there is a risk when dressing it that the cutters may compress the softer earlywood which will later recover to produce a ridged surface. Glues well and is a good base for coatings. The damp wood is corrosive to iron, resulting in a black discoloration of the surrounding wood, so hot-dipped galvanised nails are commonly used in areas likely to experience any dampness. A yellowish colouring readily leaches from the wood so white-painted woodwork at a lower level can be stained if storm rains penetrate, say, to the unprotected rear surface of cladding.

6 Heartwood durable; difficult to impregnate with preservatives.

7 S7, SD8. Not a structural timber. Some mechanical properties are listed below.

8 Clad-ding, external joinery, garden furniture, window sashes and frames, greenhouses, roofing shingles and shakes. If the water run-off from a newly installed cedar roof is to be used for drinking purposes it should be boiled. Any brown scum should be removed before boiling. If damp conditions are common the shingles and shakes may be subject to soft rot attack and some form of fungicidal treatment may be needed. The use of a steep slope will be helpful by ensuring rapid drainage of rain and dew.

9 Considerable quantities are imported.

Species	Source of test material	Density (see note 2) (kg/m <sup>3</sup> )		Modulus of rupture (MPa)		Modulus of elasticity (GPa)		Max. crushing strength (MPa)		Impact (Izod value) (J)	Hardness (Janka) (kN)	
		Basic Green	Dry	Green Dry		Green Dry		Green Dry			Green Dry	
Cedar, red, western	Canada		380	37	54	7.2	8.3	19	34		1.2	1.5
Cedar, red, western	Great Britain		370	38	65	5.4	7.0	18	35		1.6	2.0
Cedar, red, western	USA			35	53	6.3	7.7	19	35		1.2	1.6