

4/11/10 - see attached email

# TOTARA

6047A(132U)

INDIGENOUS TIMBER

## TIMBER INFORMATION SHEET

DRAFT

### AVAILABILITY, PROPERTIES, AND USES OF TOTARA (Podocarpus totara: Podocarpus hallii) TIMBER

#### 1. AVAILABILITY

Totara is the accepted name for two timber species P. totara and P. hallii (commonly referred to as Hall's totara). The species occur throughout New Zealand, although P. hallii is predominant in Southland and Westland. Production of totara has declined steadily, as has most other indigenous species, to the stage where volumes available are similar to that for kauri.

The following table shows the total New Zealand production of totara sawn timber over the past 5 years.

PRODUCTION OF TOTARA SAWN TIMBER

Year ending March	1979	1980	1981	1982	1983
Volume in thousands of	2178	2095	2357	1926	1174
cubic metres					

Source: NZ Forest Service Statistics

The bulk of the sawn timber comes from the Central North Island, with a lesser amount from Westland.

#### 2. TIMBER PROPERTIES

General description: In practical terms, timber from the two species is indistinguishable. It is a relatively light, straight grained, soft timber of very even texture and excellent stability. The heartwood, which is a dull pinkish red, is renowned for its durability. The sapwood, making up a considerably smaller proportion of the mature log, is pale brownish white in colour. The timber is considered to be of medium strength with a rather low shock resistance.

Drying: Totara air dries readily but requires slow drying by kiln. In thicknesses over 25 mm, it has a tendency to dry unevenly with some internal checking occurring.

Durability and preservation: The heartwood of totara is very durable and the sapwood is moderately durable in ground contact. Preservative treating of the heartwood is not considered necessary where a medium term life expectancy of the timber is all that is required.

Physical and Mechanical Properties:

TABLE OF SOME PHYSICAL AND MECHANICAL PROPERTIES OF TOTARA

Density at 12% Moisture Content  kg/m <sup>3</sup>	Modulus of Rupture  (MPa)		Modulus of Elasticity  (GPa)		Hardness  (KN)		Percentage Shrinkage from Green to 12% Moisture Content	
	G	D	G	D	G	D	R	T
435	47.0	62.2	60.0	64.4	2.3	2.6	2.0	4.0

- NOTES: 1. G = green timber; D = timber at 12% moisture content; R = in radial direction; T = tangential direction.  
 2. Strength values refer to 20 mm clearwood specimens.  
 3. Modulus of rupture is a measure of bending strength and modulus of elasticity is a measure and stiffness in bending. Hardness values are an average of tests on radial and tangential surfaces.  
 4. References:  
 Density and strength values are from Bier, E. "The Strength Properties of Small Clear Specimens of NZ Grown Timber", Forest Research Bulletin No. 41, FRI, NZ Forest Service, Rotorua (1983). Shrinkage values are from the Timber Design Data Handbook (1970), NZ Forest Service.

Working and finishing properties: The wood has fine working and smooth finishing properties. Renowned for its past use as an excellent joinery timber, with good screw and nail holding capacity and resistance to denting. Because of the nature of totara, the drying time of paint applied to the timber surface is substantially increased. To overcome this situation, a special primer is used.

3. USES

Totara is suitable for use in exterior joinery, door frames, window sashes, boat building, furniture and carving.

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Note: This information is subject to continual review and updating.