



## Tineo

*Weinmannia trichosperna Cav.*

### Commercial names:

Spanish:	Tenio, Teniu, Tinel, Palo santo, Maden-Tenio
English:	Tineo
French:	Tineo
Italian:	Tineo
German:	Tineo
Huilliche:	Msrewa

### Common names:

Chile:	Tineo
--------	-------

### Physical properties:

Density:	870 kg/m <sup>3</sup>
Shrinkage:	Moderately nervous
Coeficientes de Shrinkage:	Total Unitary
Volumetric:	13,0%* (-)
Tangencial:	8,0%* (0,31-0,36)
Radial:	4,0%* (0,16-0,20)
Hardness:	3,5-4,5 Semi-hard

\* (ASTM)

### Mechanical properties (Wood free of defects)

Static bending:	900 Kg/cm <sup>2</sup>
Modulus of elasticity:	-
Compression parallel to fibres:	485 Kg/cm <sup>2</sup>
Normal fibres compression:	185 Kg/cm <sup>2</sup>
Parallel Fibre traction:	920 Kg/cm <sup>2</sup>
Normal Fibre traction:	60 Kg/cm <sup>2</sup>
Tangential shear:	130 Kg/cm <sup>2</sup>

### Origin and availability:

It mainly grows in Chile, both sides of the mountain ranges between Curicó and Chilé, and from sea level to 1.500 m height. It is also located in the South of Argentina. Its production is stable.

### Description of the wood:

The heartwood is dark reddish, with a few fine black and dark lines. The wood changes its colour near the crown, acquiring brown to light cream coloured hues. The heartwood and sapwood areas are clearly differentiated thanks to the colour differentiation. The year rings are clearly visible in the head and face. Veins are thin and smooth. Depending on the cut, the medullar rays are visible either in the head or in the face, being very heterogeneous and uniserial.

The wood weights 870Kg/m<sup>3</sup>, and 12% moisture.

The tineo is easy to brushing working and gluing.

### Drying:

The artificial drying process presents average problems. It is recommended that the average temperature does not exceed 60 to 65°C. The main flaws after the drying process are cracks (face and head) and important deformations.

### Natural durability and ease to penetrate:

This wood is characterized as light and offers an average mechanical resistance. As regards to natural resistance against fungi and insects, this wood is defined as moderately resistant. The results are good and lasting when working with Tineo in exteriors, under eaves, with constructive protections provided. We can increase durability through the usage of a suitable superficial treatment. For the usage in exteriors, with no constructive protection means provided, it is recommended to use paintings. In interiors, it can be used as it comes.

Both the abortion and penetration of waterproof materials are irregular. In the heartwood, there are greater difficulties derived from liquid absorption in general terms. The application of waterproof materials in pressure chamber allows the increasing of penetration, reaching average levels.

As regards to superficial treatment, good results are achieved when using lacquer, paintings and oil. There exist occasional problems associated with the usage of diluted varnishes, and white spots may appear on the head, and cracks as well, sometimes even on the face. There may be problems derived from the application of several coats of oil as well, especially in those cases the drying times, -between layers-, are not observed, the result being a sticky surface. Walnut stain applications present difficulties due to the characteristic heartwood dark colour.

### Applications:

It is used for good quality parquets, floors, windows, doors, interior and exterior panelling, main beams for houses, partitions, staircases, railway sleepers, mainstays for the mining industry, veneer, furnishing, posts for vessels, wheels, in craftworks, and for the construction of sheds and stables.