



The forest is a determinant component of the landscape on the nine islands of Azores archipelago. Covering about 1/3 of the territory, the Azorean forest supports a sector responsible for 1.400 jobs, generating an annual income of about 1.8 million euros by direct sale of timber, and 10.9 million euros on the first wood process industries.

The Azorean forest area has 12.698 hectares of Japanese cedar (*Cryptomeria japonica* D. Don) pure and mixed plantations. About 4.500 hectares of those are under Regional Government management, with 2.119 hectares in São Miguel Island.

Taking into account its importance, the forestry strategy defined for the Azores is based on the promotion, incentive and modernization of the forest based sector, and also through responsible forest management.

Through the implementation of a management system in accordance with the standards of the major global certification initiatives, the Azorean Government intend to establish long term production and conservation commitments with important effects on land use planning. This process has started with the certification of a pilot area in January 2014, and the Government intends to extend the certification to all public forest areas.



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AZOREAN CRYPTOMERIA

Cryptomeria japonica D. Don

DATASHEET



The mark of
responsible forestry
FSC® C119744



Governo dos Açores

1 GENERAL DESCRIPTION

Scientific Name: *Cryptomeria japonica* D. Don

Common Names: Criptoméria (Portugal); Cryptométrie du Japon (France); Cryptomeria or Japanese cedar (UK/USA); Japanisch Cryptomerie (Germany); Sugi (International).

Family: *Taxodiaceae*

Origin: Far East, naturally growing in the central islands and in the south of Japan.

2 DESCRIPTION OF THE WOOD

Sapwood: Pale color, yellowish-white, reduced thickness from 2 to 5 cm wide, distinct from the heartwood.

Heartwood: Color - Rosy color, brown to purplish-black, with rings of 2 to 4 mm.

Vein – Straight.

Grain – Medium to thin and uniform.

Texture: Variable, coarse in general.

3 TECHNOLOGICAL PROPERTIES

Physical and Mechanical Properties of Cryptomeria Wood*

PROPERTIES		MEDIUM VALUES
Density (kg/m3)		260
Hardness (JANKA - kgf)		98
Shrinkage (%)	Tangential	6,1
	Radial	1,7
	Axial	0,38
	Volumetric Coefficient	0,30
Static Bending (Kg/cm2)	Modulus of Rupture	440
	Modulus of Elasticity	39,838
Axial Compression (Kg/cm2)	Modulus of Rupture	210
Perpendicular Tension (Kg/cm2)	Modulus of Rupture	12
Breaking (Kg/cm2)	Modulus of Rupture	9,062
Shear (Kg/cm)	Rupture	8

* Wood Moisture content = 12%

4 NATURAL DURABILITY AND IMPREGNABILITY

Natural Durability and Impregnability Properties of Cryptomeria Wood

	NATURAL DURABILITY					IMPREGNABILITY
	FUNGI	TERMITE	WOOD BORING BEETLES			
			<i>Lyctus</i>	<i>Hylotrupes</i>	<i>Anobium</i>	
SAPWOOD	Durable	Susceptible	Durable	Durable	Susceptible	Easy
HEARTWOOD	Durable	Susceptible	Durable	Durable	Durable	Difficult

5 WOOD TRANSFORMATION

Conversion

Easy sawing. Satisfactory fuzzy surfaces.

Easy pelling and plan cutting, due to low transversal cohesion.

Drying

Easy and fast air drying.

Workability

Very delicate due to low hardness.

Fuzzy surface and susceptible to dents.

Difficult molding.

Jointing and Fixing

Good for gluing with steady gaskets.

Good reception of metal elements but with low fixation.

Finishing

Very delicate due to wood mildness.

Good reception of finishing products: woodstains, paints and varnishes.

6 MAIN USES

Cryptomeria wood has excellent quality for a proper range of uses with almost no similar.

Main uses:

- Cross laminated timber - CLT
- Glued laminated timber - GLULAM
- Laminboards and plywood
- Wall cladding, dividers and insulation
- Doors, windows and frames
- Trusses and roofs
- Prefabricated houses
- Formwork for construction
- Solid wood packaging
- Internal parts of furniture

7 NOTES

Wood similar to Cypress (*Taxodium* sp.) and to Redwood (*Sequoia* sp.) from North America.

Wood with a very pleasant odor.

Wood with beautiful appearance.

No resin channels.

The principal defects that may occur are small to medium knots irregularly distributed, and internal cracks.