

Tasmanian Blue Gum: *Eucalyptus globulus subsp. globulus*

Other common names: Southern Blue Gum, Blue Gum

The Timber

Tasmanian Blue Gum is a fine compliment to Tasmanian Oak. A tough but pale hardwood, its notable hardness and density makes it ideal for floors, fittings and surfaces expected to take considerable wear.

Tasmanian Blue Gum is pale straw to brown, often with blue to green-grey tones. The sapwood is paler than the heartwood, but often difficult to distinguish. Blue Gum is one of Tasmania's most durable timbers which, combined with its strength, makes it a good structural timber. In keeping with its density, Blue Gum has to be seasoned and worked with care.

The timber established a reputation with early European settlers for its toughness and durability, particularly for bridge construction and wharf piling. More recently, its potential as an appearance timber has been recognised. The leaves and large flower cases of the tree have a strong and characteristic fragrance. Oils extracted from Blue Gum leaves were also exported for use in medicines and varnishes.



The Resource

Tasmanian Blue Gum is found in most of eastern coastal Tasmania, generally below an elevation of 400m. It grows in wet or dry sclerophyll forests and wood lands.

In favourable conditions, Tasmanian Blue Gum is a tall, straight tree growing to 70 metres high and 2 metres in diameter. The greater part of the trunk and the branches are smooth with the rough bark shedding in strips on the lower parts of the tree. The juvenile leaves are broad, up to 15cm long and covered with a blue-grey, waxy bloom.

Tasmanian Blue Gums grow rapidly, particularly with intense cultivation. Blue Gum plantations, established predominantly for pulp and paper, commonly grow 20 to 30m³ of wood fibre per hectare annually, and young trees can grow 2m in height each year. In 2005, Tasmanian Blue Gum made up about 65% of Australia's hardwood plantations and the species is now one of the world's most widely planted eucalypts.



Blue Gum properties

Colour	Pale straw to brown, often with blue-green tones.
Grain	Sometimes straight, sometimes interlocked. Fairly coarse and even with distinct growth rings.
Texture	Uniform and smooth.
Durability	In-ground contact: Class 3. Outside above ground: Class 2. Termite resistance of heartwood: Not resistant. Refer to AS 5604-2005 Timber - Natural durability ratings.
Lyctid susceptibility	Sapwood is susceptible.
Sizes	Undressed seasoned and unseasoned timber 50 to 150mm wide by 25 to 50mm thick. Lengths up to 5400mm long are available. Flooring profiles available.
Density	Approximately 900kg/m ³ at 12% moisture content. Unseasoned density approximately 1100kg/m ³ .
Shrinkage (green to 12% MC)	Approximately 7% radial, 15% tangential before reconditioning; 5% radial and 10% tangential after reconditioning.
Movement	Between 25% and 5% MC, radial movement is approximately 0.49% per 1% MC change; tangential movement about 0.61% per 1% MC change.
Strength groups	Seasoned SD2, unseasoned S3.
Joint group	Seasoned JD1, unseasoned J1.
Structural grades	Most commonly available stress grades are F22 seasoned, F11 unseasoned.
Toughness (Izod)	16J unseasoned, 23J seasoned.
Hardness (Janka)	7kN unseasoned, 10kN seasoned.

Fire hazard properties: flooring (AS ISO 9239.1)

Critical radiant heat flux	> 4.5kW/m ²
Smoke development rate	< 750%.min

Fire hazard properties: wall and ceiling lining (AS/NZ 3837)

Material group no.	3
Average extinction area	< 250m ² /kg

Workability

General	Good results can be achieved with careful working and the correct machinery.
Blunting	Severe.
Sawing	Usually cuts cleanly with high feeding forces.
Planing	High feeding forces required. Machine marks may be difficult to remove.
Moulding	Surfaces are true and clean, even end grain. Holds edges exceptionally well.
Boring	Difficult to drill, but holes are usually very clean and to size.
Rebating + mortising	Difficult but produces good results.
Turning	Turns well with sharp arrises and well finished curves.
Nailing	Seasoned material is difficult to nail; pre-drilling is often necessary.
Gluing	Exceptional care required when preparing surfaces for gluing. Must be performed under properly controlled conditions with suitable formulations.
Bending	A good bending material.
Finishing	Can be worked to a smooth, very resilient surface. Most finishes adhere well.

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