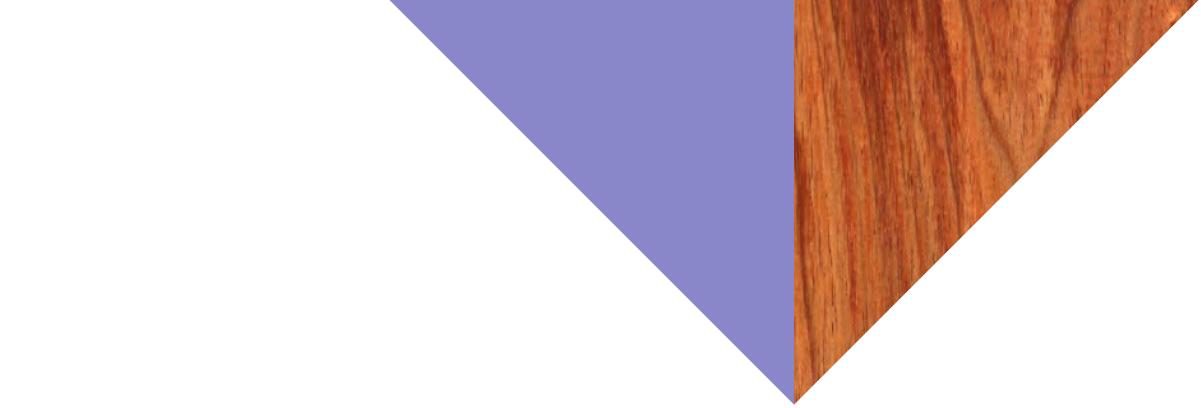

Tasmanian Timber
Blackwood

Acacia melanoxylon
Other common names: Black Wattle

The Timber
This is the perfect timber for fine furniture, joinery or a feature floor.

Boasting a variety of colours ranging from light golden-brown to deep brown (sometimes with a reddish tint) and occasionally showing black streaks, the timber radiates a subtle beauty that makes it irresistible to designers. Additional character is added by the grain of the wood, which can be straight or wavy with a natural lustre.

Blackwood is easily worked, very stable and long lasting, and Blackwood artefacts are always statements of style and quality.

In addition to the supply of solid sections, the availability of high quality veneers has increased the timber's versatility for use in joinery, cabinet-making and feature panelling. Small cross-sections of solid timber are also laminated, particularly for bench tops.

The Resource
Blackwood is a member of the wattle family and a hardwood. It occurs throughout Tasmania's native forests from sea level to 1000 m in elevation but it thrives in swamp and riverine areas. It is also a common understorey component of wet eucalypt forest.

The swamps of north-west Tasmania, where there are almost pure stands, have been a primary source of high quality Blackwood for more than a century. This resource has been the cornerstone of Tasmania's fine furniture industry over that time.

About 8000 ha of swamp forest is dedicated to Blackwood silviculture on a sustained yield basis. Rotations are generally of the order of 70 years for native forest.

Blackwood is an easy tree to grow. Its durable seed remains viable in the soil for decades. After harvest, regeneration treatment involves burning to encourage germination and fencing to protect seedlings from browsing wildlife. Young seedlings are very palatable to pademelons, wallabies and other native animals.

In the past, demand has sometimes exceeded supply, but thanks to the work of progressive manufacturers who have highlighted the character of Blackwood in their work, even knotty and naturally featured sections of logs are now used. As a result of sensible, sustainable management, Australia's talented designers and manufacturers will always have access to a small but reliable supply.

Tasmanian Timber
Blackwood

Tasmanian Blackwood properties:	
Colour	Heartwood is light brown to dark brown with occasional red tinting. Sapwood is straw coloured.
Grain	Mainly straight, occasionally wavy (fiddleback figure).
Texture	Even and medium.
Durability	In-ground contact: Class 4. Outside above ground: Class 3. Refer to AS 5604—2005 Timber—Natural durability ratings. Durable for internal use but should only be used externally if protected from the weather.
Lyctid susceptibility	Sapwood is susceptible.
Sizes	Dressed seasoned timber, 19 to 285 mm wide by 19 to 45 mm thick is available in lengths up to 5400 mm. Most production lengths are less than 3000 mm.
Density	Approximately 650 kg/m^3 at 12% moisture content. Unseasoned density approximately 870 kg/m^3
Shrinkage (green to 12% MC)	Approximately 1.5% radial, 4% tangential. Negligible collapse shrinkage.
Movement	Between 25% and 5% MC, radial movement is approx. 0.16% per 1% MC change; tangential movement is about 0.27% per 1% MC change.
Strength groups	Seasoned SD4, unseasoned S4.
Joint group	Seasoned JD3, unseasoned J3.
Structural grades	Most commonly available structural grade is number 3; F14 seasoned, F8 unseasoned.
Toughness (Izod)	15 - 24 Nm
Hardness (Janka)	4.6 kN unseasoned, 5.9 kN seasoned.

Fire hazard properties: flooring (AS ISO 9239.1)	
Critical radiant heat flux	> 2.2 and < 4.5 kW/m2
Smoke development rate	< 750 %.min

Fire hazard properties: wall and ceiling lining (AS/NZ 3837)	
Material group no.	3
Average extinction area	< 250 m^2/kg

Workability	
General	Blackwood possesses a deep, lustrous grain and is highly resilient, yet easy to work. Particular care should be taken to avoid inhalation of Blackwood dust.
Blunting	Moderately high.
Sawing	Cuts fairly easily, cleanly and accurately. Moderate feeding forces required.
Planing	Surfaces very smooth and lustrous. Care must be taken to work "with" the grain.
Moulding	Surfaces and edges are true, even end grain.
Boring	Holes are usually clean and to size.
Rebating + mortising	Cuts very cleanly, giving excellent results.
Turning	Turns very well with sharp arrises & well-finished curves.
Nailing	Nails well although some seasoned material can tend to split. Nails hold reasonably well.
Gluing	Glues satisfactorily with most common adhesives.
Bending	A very good bending timber. 25 mm material bends well to a radius of 50 mm.
Finishing	Readily worked to a smooth, resilient finish and takes a high polish.

Notes

[1] From green to 12% moisture content (MC)

Tasmanian timber is sustainably grown, harvested and processed to meet the highest standards in quality and environmental practice.

For further information contact:

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Phone: 1300 041 766—(international callers: +613 6324 4081)
Email: contact@tasmaniantimber.com.au

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Tasmanian Timber
Blackwood

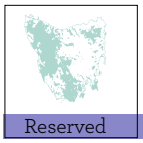
Acacia melanoxylon

Forest Type
Distribution of forest type that contain these species:

Forest Type Location

Wet Eucalyptus

Rain



36%

Reserved

36% of total Blackwood forest types are reserved

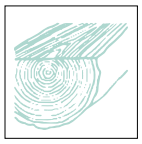
Certification

AUSTRALIAN FORESTRY STANDARD AFS/01-21-23 ✓

chain of custody ✓

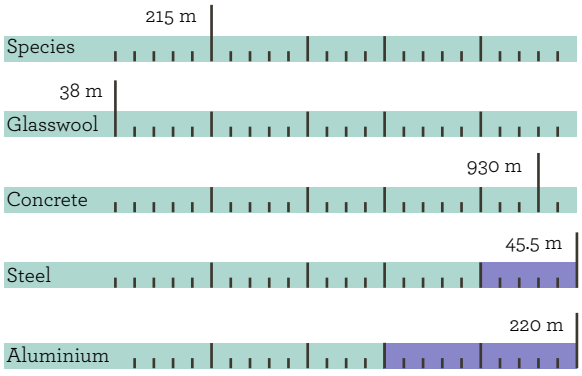
Carbon Storage[2]

396 kg/m³



Availability

Thermal Resistance[3]
Thickness required to achieve a value of R1



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ORIGINAL | TASMANIAN TIMBER ™

Tasmanian Timber
Blackwood

Appearance
Blackwood is one of the best known of Tasmania's wattles. It can reach heights of 35 m, but is generally around 10—20 m, with a trunk up to 1m in diameter. Smaller trees branch from near ground level (shrub-like), and larger plants in forests have a well-developed trunk below the dense crown.

Flowers: Blackwood flowers are densely packed, with stalks containing 30—50 ball-shaped flowers. They are whitish to pale yellow — typical of the wattle family — and flower in spring.

Leaves: Blackwoods make good shade trees with prolific foliage. Their leaves are olive green, lance-shaped and up to 16 cm in length.

Bark the tree's bark is brown-grey to dark-grey and hard. It varies in thickness from less than 0.5 cm to 5 cm at the base in large trees and characteristically has long, vertical furrows along the trunk. Because Blackwood thrives in wet conditions, the shady side of the tree often has a partial covering of grey lichens.

Forest
Blackwood is sourced from native forests. It is a common understorey species that readily grows from the coast to 1,000 m above sea level but it excels in lowland swampy conditions. It will establish on the lower valley slopes of hilly and mountainous areas, up to the higher hill slopes and tablelands, and even on exposed mountaintops.

Growing Constraints: Blackwood is short-lived and fast growing. It has a vigorous spreading root system that suckers readily. After fire, it regenerates easily from seed and its young growth is particularly attractive to native animals. Blackwood is fairly resistant to frost, thrives in a moist atmosphere, and can tolerate shady and windy conditions. It grows well in many soil conditions: fertile, loam, poorly drained, well-drained, and even on the residue from tin- sluicing operations.

Distribution: Blackwood grows best in the swamps and lowlands of the north-west of Tasmania in a variety of wet eucalypt forests. 36% of total Blackwood forest types are reserved.

Environmental
The aim of environmentally sustainable and responsible building practice is to consume minimal resources during construction, operation and eventual demolition.

Sustainable Management[1]: The National Forest Policy Statement identifies three principles for sustainable forest management: preserve biological diversity, maintain ecological processes within forests, and community benefit. Species sourced and processed in Tasmania from certified native forest and plantations are considered to be sustainably managed.

Certification: Certified forests are managed in line with internationally recognised performance-based standards and are subject to third party audit. Most forests in Tasmania are certified to the Australian Forest Certification Scheme (AFCS). This requires compliance with AS 4708 (for forestry growers) and AS 4707 for Chain of Custody (forest to consumers). AFCS is internationally recognised by the Program of the Endorsement of Forest Certification schemes (PEFC) and certifiers are independently accredited by JAS-ANZ.

Chain Of Custody: ensures that timber supplied is from a certified forest source. It requires controlled labelling and an auditable trail from the forest along the supply chain involving forest managers, processors, manufacturers, and stockists.

Carbon Storage:[2] the growth of trees absorbs carbon, other emissions and particles from the atmosphere; converting them into wood and other biomass. Some carbon is released by harvest and processing, but the carbon stored within the recovered wood is contained for the life of the material.

R Values:[3] a material's resistance to the flow of heat is calculated as its R Value. The R Value of the building envelope is the sum of individual building components. The insulation (R Value) properties of building materials are important considerations in the design of energy efficient structures.

Availability: Blackwood's availability is limited, and is constrained by location and style of harvesting operations.

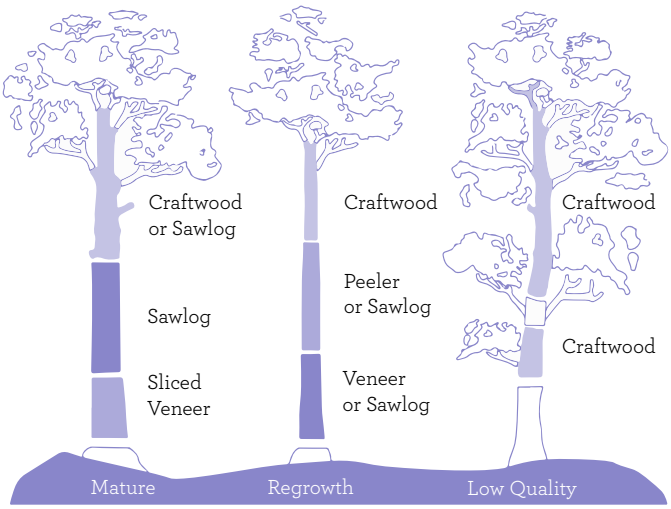
Tasmanian Timber

Blackwood

Environmental Summary	
Resource Available from sustainably managed sources[1]	✓
Reserves A percentage of this species is reserved	✓
Certification This species is available with forest certification	✓
Chain of Custody Product with Chain of Custody is available	✓
Appearance Product for appearance use is available	✓
Structural Product for structural use is available	✗

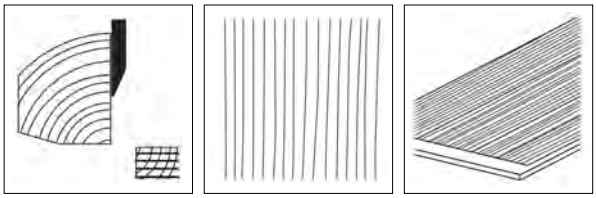
Tree Product

Mature Eucalypt Profile Shown

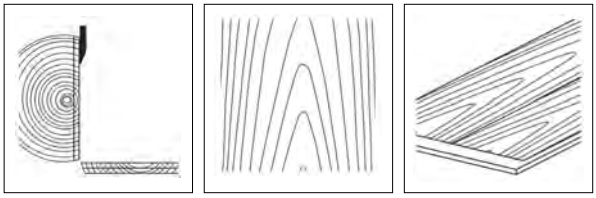


Products Appearance

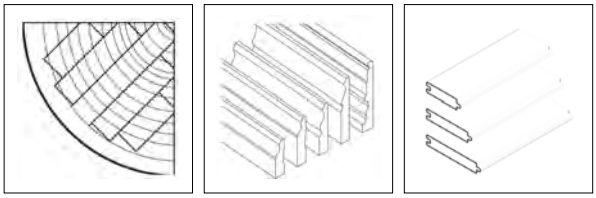
Quarter Sawn Veneer



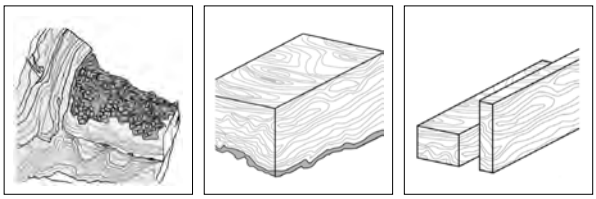
Crown Cut Veneer



Sawn Solid



Craft Wood



Tasmanian Timber

Blackwood

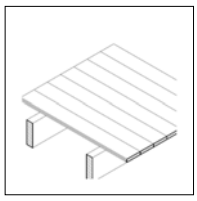
Characteristics

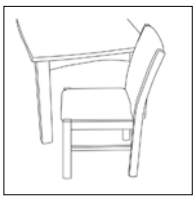
Colour:
Heartwood is golden brown, often with black streaks and narrow bands of darker colour indicative of the growth rings. Sometimes reddish streaks are also present. Sapwood is distinctively paler and up to 50 mm wide.

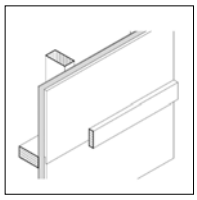
Grain:
Straight but sometimes wavy, producing a fiddleback figure. Texture is medium and even.

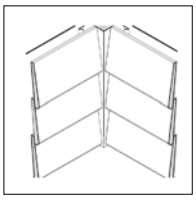
Features:
1. Black & white: dynamic colour combination of pale sapwood and darker hear twood.
2. Curly: small markings in the grain, in the form of irregular, and distorted undulations.

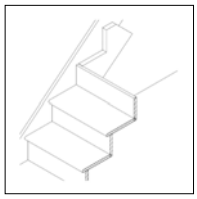
Applications

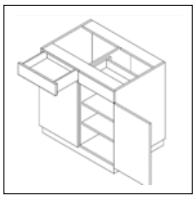

Flooring


Furniture


Fitting & Trims


Lining & Cladding


Windows Doors Stairs


Joinery

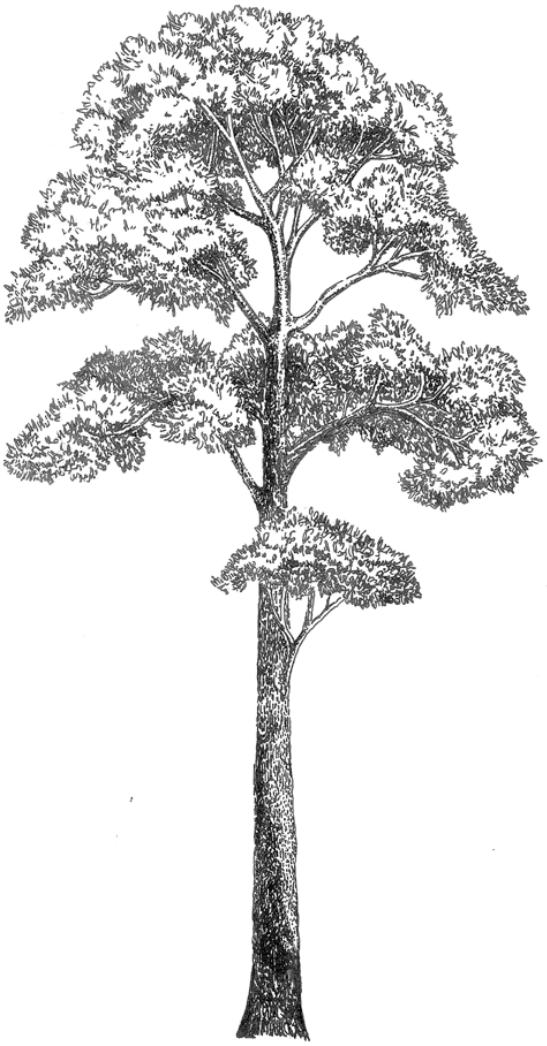
Credits:

Maps: Tasmanian Government Department of Primary Industries and Water; **Tree Product Illustration:** Forestry Tasmania; **Forest Type Illustration:** Fred Duncan, Forestry Tasmania; **Forest Image:** Tasmanian Timber Promotion Board; **Species Illustration:** Vicky Dewsbury; **Species Application Image:** ASFF
1. National Forest Policy Statement, daffa.gov.au
2. 2004: Ximenes, F.A. and Davies, I. "Timber CAM—A carbon accounting model for wood and wood products in Australia". dpi.nsw.gov.au/forests/info/timbercam
3. R Value Comparision Calculations -AS2878:2000, and ASHRAE, 2005 Physical Properties of Materials.

Tasmanian Timber

Blackwood

Tree
Can grow to 35 m, average is 10—20 m
Can grow 1 m per year
Can grow 12 mm in diameter per year



Bark
Brown to dark grey
Long vertical furrows

Leaves
Lance-shaped
Olive green

Flowers
Ball shaped
Whitish-yellow

Funding asssistance was provided through the Tasmanian Community Forest Agreement Industry Development Program, a joint initiative of the Australian and Tasmanian governments and administered by the Australian government Department of Agriculture, Fisheries and Forestry.

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