

Timber ZOO

Advice on Dressed Timber

Both recycled and KD timber products on the shelves at Timberzoo are suitable for fine-furniture practices such as laminating and jointing - for instance, mitres and dovetails. These timbers are reliably 10-12% MC and stable in typical indoor environments in terms of shrinkage or excessive movement.

However, our range of re-dressed F27 and Wharfdeck sizes, which have also been kiln-dried, are not suitable for these practices because they are dried to 15-16% MC which is consistent - and at equilibrium - with the range of humidity experienced in outdoor areas such as decks and courtyards.

Re-dressed F27 and Wharfdeck products retain an arised edge that will provide an elegant expressed-joint for outdoor benchtops and tabletops. The aris also acts as a deterrent, preventing ready edge-lamination of F27 boards.

It is broadly recognised in the industry that edge-laminated benchtops are not suitable for outdoor areas - exposed to weather or even in dry undercover - due to wide variations in atmospheric humidity throughout the year. Suitable designs for benchtops outdoors should recognise timber behaviour in a range of humidity and weathering environments. This applies to all species in the range of durability classes.

Durable Species

Both F27 and furniture boards in durable species can be used outdoors providing necessary design criteria are observed. DC1 (Durability Class 1) and DC2 hardwoods can be used outdoors exposed to sun and rain. Whereas DC3 and DC4 timbers can be used in any covered areas outdoors.

Properties of Australian hardwoods can be referenced on the Resources page of our website: www.timberzoo.com.au/resources

Natural Durability Classes

Natural durability is defined as "the inherent resistance of a specific timber to decay and to insect attack". Natural Durability Classes provide the basis for rating the timber's performance and longevity in contact with the ground when exposed to average environmental conditions. The classification system is based on the average life expectancy (in years) for any timber species, as shown here.

TABLE 1

NATURAL DURABILITY—PROBABLE LIFE EXPECTANCY*

| Class | Probable in-ground life expectancy (years) | Probable above-ground life expectancy (years) |
|-------|--|---|
| 1 | Greater than 25 | Greater than 40 |
| 2 | 15 to 25 | 15 to 40 |
| 3 | 5 to 15 | 7 to 15 |
| 4 | 0 to 5 | 0 to 7 |

* The ratings in this Table are based on expert opinions and the performance of the following test specimens:

- (a) In-ground: 50 × 50 mm test specimens at four sites around Australia.
- (b) Above-ground: 35 × 35 mm test specimens at eleven sites around Australia.

NOTES:

- 1 As further reliable evidence becomes available, these ratings may require amending.
- 2 The heartwood of an individual piece of timber may vary from the species' nominated classification.
- 3 Above-ground conditions equate to outside above-ground subject to periodic moderate wetting when ventilation and drainage are adequate.

Standards Australia 2003. Revised 2005. AS 5604 - Timber-Natural durability ratings.

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The following species table represents the most species sold at Timberzoo:

| DURABILITY CLASS | | | |
|-----------------------------|--------------------|-------------------------------|---------------------------|
| 1 - Highly Durable | 2 - Durable | 3 - Moderately Durable | 4 - Low Durability |
| Ironbark | Spotted Gum | Messmate | Mountain Ash |
| Tallowwood | Blackbutt | Qld Silver Ash | Douglas Fir |
| White Mahogany | Silver Top Ash | Blackwood | Northern Silky Oak |
| Forest Red Gum Blackbean | Jarraah | Tasmanian Oak | White Oak |
| Grey Box Turpentine | | Brushbox | |

Suitability

Many DAR timber projects have a higher standard of finish than rudimentary sawn timber projects such as garden beds or retaining walls. Therefore, consider all the aspects of suitability in your choice of timber:

- Dimension:

In an exposed aspect, use well-balanced dimensions on all handrails, benches and tables. Keep to 4:1 ratio of width vs thickness. 140 x 40mm might survive years without surface deviation. 290 x 32mm in the same species might cup 4-5mm at its centre in only a few months.

- Grade:

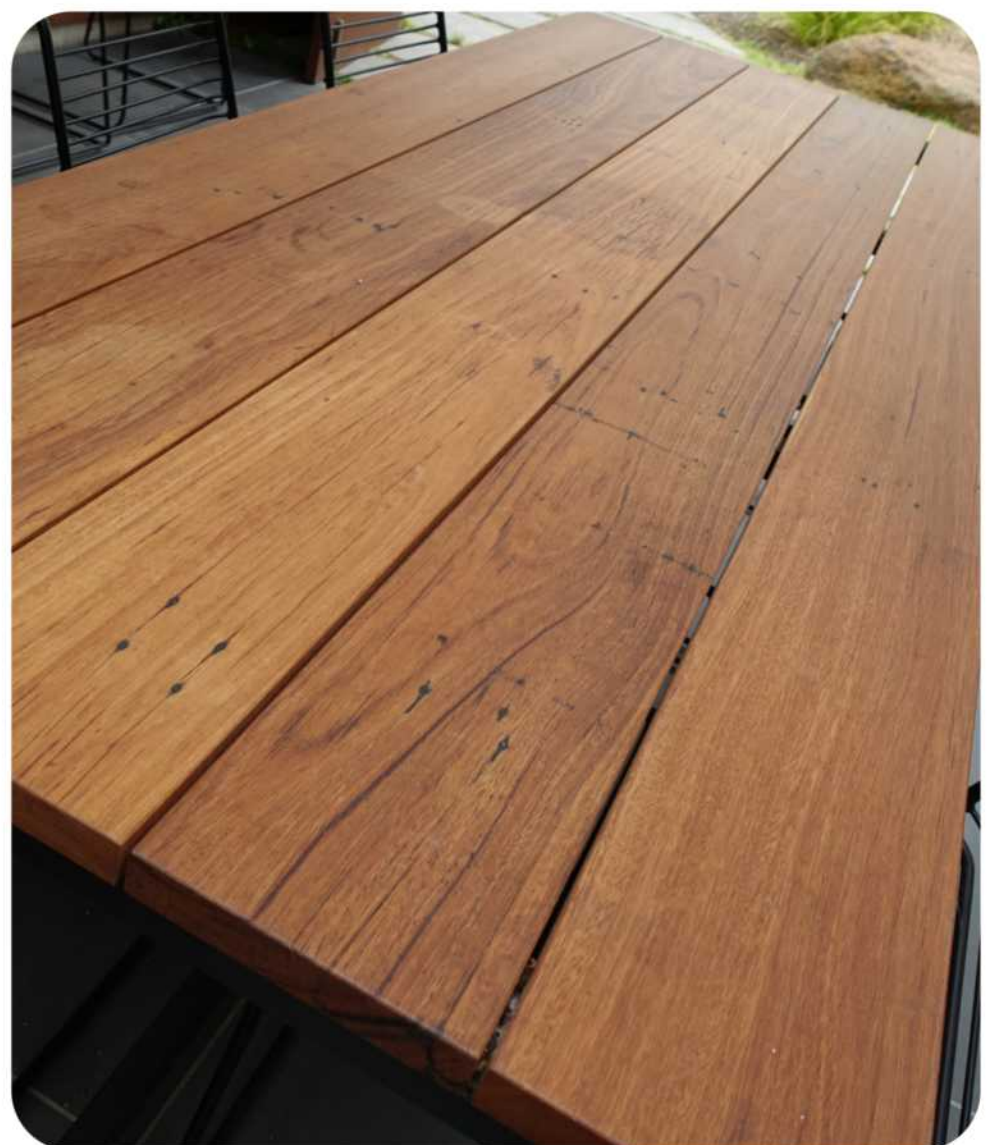
Some natural features are a water-trap on an upper face in an exposed aspect.

Consultation

Discuss your project with Timberzoo staff. Inform us of your intended use so we can recommend best timbers for the project and address all fit-for-purpose issues on timber selection.



Fine furniture practices such as laminating, used in an internal application.



Expressed joints used in external applications, reducing the impact of timber movement.

Recycled Timber - defect or desired features?

Recycled Messmate boards at Timberzoo are re-milled from recycled construction timbers. They were originally installed as green timber - structural joists, beams, rafters - and were seasoned over the life of the building, then removed during demolition. Structural hardwoods are more often backsawn rather than quartersawn and run-of-mill rather than graded for appearance. This means the boards show crown features, irregular colour, gum lines and natural features instead of the lineal, low-featured and uniform tones of quartersawn timber.

The construction source of recycled hardwoods will determine the 'attrition' features they exhibit. Purlins will have nail, screw or bolt holes; floor joist will show metal marks on one edge. Truss chords will exhibit bolt holes, notches and mortise features; ridge boards and ceiling hangers will show clusters of nail holes across the face of the board. Timber may show discoloration close to original surface intensified by oxidation and surface checking (fine shallow furrows or fracture on the surface of air-dried board). Black carbon staining can halo bolt or nail holes and chisel marks remain where metal fragments have been dug out.

Messmate or mixed Stringybarks?

Recycled construction timbers are unlikely to come as a single species batch. By convention, our recycled "messmate" has other stringybarks, and other coastal and montane forest species, in the packs. Silvertop Ash, Mountain Ash, Yellow Stringybark, Blue-leaf Stringybark, Blackbutt, and Tasmanian Blue Gum occur in the mix. None of these is dissimilar in colour and all are difficult to separate.

By rights, our industry should have adopted a product name that was not species-specific. At the time we were caught up in an important movement of the early 90s - which was to put these old but unfashionable timber names back on the menu for appearance-grade floors and furniture timbers, and to avoid the cringe euphemisms of the 1930-1960s such as Oak or Ash applied to native hardwoods. Intent on this new eucalypt nationalism, we didn't think far enough ahead - and the convention of calling Stringybarks "messmate" became set in concrete.

Other Species

The same general outline of attrition features in Victorian stringybarks is true for recycled Douglas Fir and for east coast eucalypt species such as Ironbark, Blackbutt, Spotted Gum, Tallowwood and Red Mahogany. The following is a list of desired attrition and natural features that are to be found in our range of timbers dressed and presented for sale - as well as rough-sawn structural and landscape grade stocks.

| | | | |
|--|--|----------------|------------------------------------|
| Surface checking | edge-notches | bolt holes | knot and adjacent feature |
| Gumlines | gum voids | hobnail | insect spirals and pinhole scatter |
| Black Speck | coffee stain | cross-grain | chatoyance and fiddleback |
| Nail Holes | black or carbon staining – usually around penetrations | | |
| Teredo Worm Holes | internal drying check (limited) | | surface oxidation, staining |
| Injury Overgrowth | clean pocketing | metal dig-outs | rebates and mortise holes |
| Raised grain on dressed cross-grain or fiddleback boards | | | pencil-streak |

Our grading process is not intended to eliminate these features described above unless they are excessive or affect board integrity. Installation as an overlay flooring or lining board means many of these attrition features cause no detriment to the finished floor or wall.

Displays of finished flooring, lining boards and DAR loose boards and production packs are always available for inspection, and purchasers should inform themselves first-hand - and prior to purchase - of the essential nature of the product described here, as no claims will be heard in respect of grade, essential flaws as listed, colour or visible defect after purchase. Choose wisely as no returns, refunds or exchanges are possible if based upon expected or predictable recycled characteristics or change-of-mind.