

Advice on Timber posts - New & Recycled

Insurance for your Timber Posts and Beams

All posts purchased have already been sealed with an end-grain sealant - a waxy membrane sealant preventing rapid moisture loss from the ends of the posts. Everything to do with hardwood seasoning or acclimatisation must be gradual. Timber can misbehave during rapid drying events.

When you re-cut your posts for installation, apply an end-grain sealant - such as Timbecon - immediately to all freshly-cut surfaces. This is relevant for step-cuts, rebates or footing slots made to house beams. The timber ends and haunches can develop serious checks if left unsealed and allowed to dry rapidly. Think twice before drilling cores for pencil lights or fixing pins. This practice can initiate movement so use the same wax sealant on the internal surfaces.

Oiling of the timber surface of posts and beams with Aussie Clear decking oil also reduces drying rate of the timber case. This is advisable in Victoria and South Australia with their low humidity summers. For in-ground installations, paint the post end first with Digger Eco-Protecta to prolong service life in wet clay soils. All these products can be purchased at Timberzoo when selecting posts for your construction project.

Aussie Clear Decking Oil

AUSSIE CLEAR is an exterior decking oil and timber finish that protects hardwoods from the weather. It is the best oil-based finish to highlight the natural grain and beauty. This results in a completely natural oiled look. AUSSIE CLEAR stabilises timber as it repels moisture, reducing checking or splitting. No film is allowed to form, so peeling or cracking is never a problem. It also inhibits unsightly mould growth with its powerful mouldicide. It has been specially formulated and tinted to use on a broad range of hardwoods.







Diggers Eco In-Ground Timber Protecta is a non- hazardous 'creosote alternative' that provides a tough bitumen coating to improve protection against moisture and deterioration on timber and masonry surfaces.

Timbecon End Check Wax Sealer - All beams and posts are sold with wax sealant applied to docked ends. It is important to reseal all subsequent finishing cuts on posts and beams to prevent rapid drying of post haunches - especially step-cuts - to prevent movement such as twist, warp and end-splits.

Advice on preservatives - Recycled Timber

Be advised that all recycled bridge, wharf and power pole timbers may have preservative-treated surfaces. Preservatives may be visible or not visible. A precautionary approach is to assume that scheduled chemical preservatives may be present in all cases and due care should therefore be taken in handling. Timber with this provenance is not recommended for playground structures, handrails or surfaces where human contact by bare feet and hands is routine. They are recommended for fences, gateposts, other outdoor structures and landscape features - as well as for wall and overhead structures internally. Treated timber is deemed safe for these uses under AS5605-2007 provided common sense is used in handling and safety guidelines are followed.

Be aware that native hardwoods currently milled in NSW and Queensland with non-durable sapwood are mandated by law to have preservative treatment if they are offered as structural F27, floorboards, decking or for outdoor purposes.

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Timber Selection at Timberzoo

At Timberzoo we sell timber to you as recycled (reclaimed or re-sawn) and new unseasoned and partially seasoned posts and beams. Inspect and choose timber lengths yourself. You can call our sales staff to book a consultation at short notice, and we will find a forklift to assist our search. We spend considerable time with customers in the woodyard so informed selection can be made. The best posts to use are DC1 species - Durability Class 1. They can be installed in-ground or on stirrups. DC1 and DC2 hardwoods are best for pergola beams. Less durable species are suited to interior uses and retail or hospitality projects.

Structural Considerations

Salvaged timbers have great appeal in their appearance and texture, but important structural considerations still need to be discussed with designers. Not all recycled beams are suitable for high load structural use. This limitation is due to characteristics of recycled timbers such as notches, rebates, bolt holes and minor fractures. However, recycled timber can be supported in design by concealed steel or engineered beams and should be considered a viable element of building.

For outdoor structures, such as unroofed pergolas, the structural rating of most bridge timbers exceeds the minimum standard required – usually represented by F8 Cypress beams – and they are ideally suited for this application because of their industrial look.

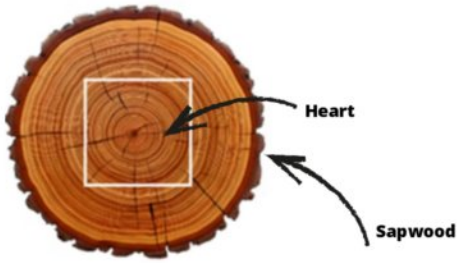
In salvage, most reclaimed beams are rectangular in section - not square. This is because a rectangular beam is the most efficient use of sawlog - and has more strength than square sections per cubic metre of timber within the beam.

Nowadays square dimensions are popular in building and to supply the strong demand they are re-sawn from old girders and piling in the round. They are necessarily boxed-heart in character if dimension exceeds 125 x 125mm. Given sawlog or girder supply at 400-700mm diameters, there is no other way to supply large sections such as 150x150mm, 200x200mm up to 300x300mm. Boxed-heart posts have a long tradition of use and can be widely employed in building and outdoor structures – given a fundamental understanding of their limitations and their overall character.

The Science of Boxed-Heart Timber

Building practitioners and designers need to be aware that the presence of heart in the timber section - a) limits the strength of the post, and b) means that additional fracture and movement is to be expected - unless the dimension is reclaimed. Reclaimed boxed-heart posts may be better suited to precision designs with low tolerances than re-sawn posts because although they will already show the visible effects of tension, distortion and drying, they will be stable in terms of future movement and shrinkage. Unfortunately, they are an uncommon salvage item in good quantity from demolition – and demand for square posts is higher than supply.

'Heart' is a sawmiller's term for the dead centre of a sawlog often defined by a small star fracture. In principle, milling a round girder or sawlog to a square post should maximise the amount of wood retained around the heart. The essential science of boxed-heart milling is balance. The aim is to contain the heart with an equal amount of heartwood on all sides. Even when a small flitch of wing timber is removed in milling, some counter-tension will be released by the heart as it discovers there is less heartwood to balance it – or oppose it.





Acclimatisation of Re-sawn Posts & Beams

Apart from natural log tension, other evident movements in posts can be attributable to drying or seasoning. A sawn post will require several months for new surfaces to find equilibrium with its outdoor environment. Even when dead, timber seems to be a living thing. Drying can produce fine fractures known as surface checking on boxed-heart posts. New timber posts can successfully retain a reasonably high 'core' moisture in service if the outer surface or 'case' is allowed to season slowly. The posts can be used after a few months of seasoning for most general construction purposes.





