



# Outdoor Structures Australia

*outlasts and outperforms*

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## EXTERNAL TIMBER DESIGN NOTE

### No. 8 October 2009 – Using Cypress Externally



Cypress was classed as a Durability 1 in ground species (the highest) but recent codes have downgraded it to Durability 2 in ground.

When a technical publication refers to the natural durability of a species it refers to the heartwood, otherwise known as the truewood. This is the timber directly behind the sapwood. Sapwood in Cypress is easily distinguished as the broad band of lighter coloured timber at the outside of the log. The heart and heartwood are much darker. No

sapwood is durable, irrespective of the species whether it be ironbark (in ground durability 1) or pine. All sapwood is classed as in ground or above ground durability 4 depending on the application.

Sapwood of many species can be made durable by treatment. Cypress, however, is classed as a *refractory* species because it does not treat well with waterborne preservatives such as CCA and Tanalith E and ACQ. This means that in Queensland it is probably illegal to sell cypress with a claim that it is treated to H3 with any of these preservatives. Most likely, it will not comply with the specified penetration and retention for the species/hazard class combination. Unfortunately for Victoria and other states that do not have a Timber Utilisation and Marketing Act “anything can go” and quite frequently does. .

Unlike hardwood, the heart (this is different to heartwood) or pith of the cypress log is structural,. This allows small members such as 100x100 can be cut, boxed around the pith giving a member without sapwood. The small nature of the log limit the member size that can be achieved this way. Rectangular members are cut to give the maximum recovery from the log and so contain much sapwood. Is it possible to order the timber free of sapwood? My contacts in the industry would not even accept orders for ex 100x25 product free of sapwood!

Apart from the exception given above, Cypress should not be considered suitable for structural purposes for **fully weather exposed** external use such as boardwalks and decking where a long trouble free life is required. Appropriate uses for cypress are as covered framing where its termite resistance is required or as attractive internal flooring. Some are reporting reasonable service as decking under a roof.

Recently there has been some success with LOSP treatment on boards up to 25mm thick. These boards are too thin for commercial decks.

Ted Stubbersfield,  
Director.

***PLEASE CONTACT TED IF YOU REQUIRE FURTHER TECHNICAL INFORMATION ON EXTERNAL  
TIMBER STRUCTURES OR VISIT OUR WEBSITE - [www.outdoorstructures.com.au](http://www.outdoorstructures.com.au)***