



# The use of Imported Timbers in Termite Areas



Australia relies upon many species of imported timber in both structural and architectural applications. These timbers offer a range of properties and aesthetic qualities which lend themselves to a variety of applications including commercial construction purposes such as bridges and wharves and domestic applications like house framing, decks and pergolas, fences and all external landscaping uses.

Termites are a common insect pest in Australia, one that homeowners have lived with since the first settlement. Having regard to the population spread and the resulting level of dwellings most people are situated in low or negligible Termite Risk Areas. There is no doubt that Termites can cause damage to houses; however the evidence suggests that the economic impact is low.

## Understanding Termites

When considering the risk of termite attack, homeowners should realise that all houses, not just timber framed ones, pose the same risk. A CSIRO study conducted between 1996 and 1998 found that steel and masonry houses had virtually the same chances of attack.

Subterranean termites, those of most common occurrence, tunnel long distances underground in search of food. Houses in wooded areas or those built on sites that may contain buried stumps or trees, yards that have firewood heaps or similar sources of food have the greater chance of activity.

Most termite activity occurs around the house focusing on fences and landscaping structures and therefore regular maintenance to the surroundings and inspection of food sources and structures including the house is beneficial.

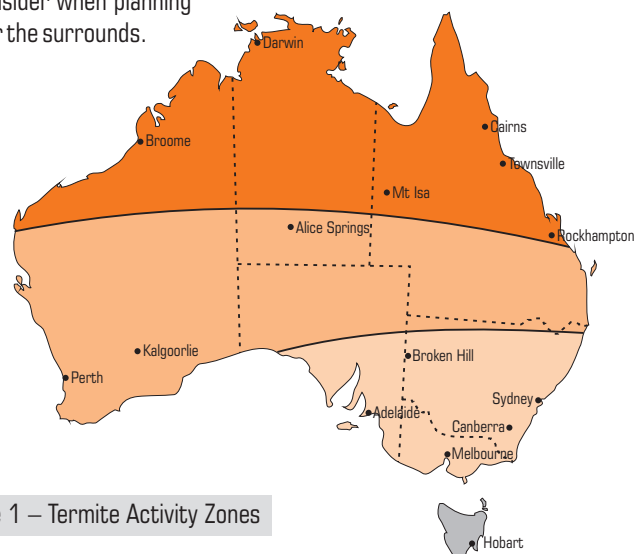
Knowing that termites are actually out there foraging for food and not necessarily looking to nest in your house can make you feel more confident when planning the landscape. Make sure that the placement of outbuildings or garden-beds is such that termites don't have undetectable access to the house

Many timbers and timber products can be successfully used in these endeavours; however understanding three simple points about the house environment can help you in establishing your building and subsequent inspection programs:

- Are you in a high risk part of Australia? (refer to Figure 1 below)
  - Very few people live in the High Risk zone.
- Are you building in an old established suburb?
  - The longer a suburb has been established the more likely that termites are actively searching for food away from their natural habitat.
- Are there a lot of trees and other food sources near the house?
  - Manage and maintain your own premises but also be aware of the neighbouring potential food sources.

The more you answered yes to these questions the more you need to consider when planning the design of your house or the surrounds.

- A Negligible
- B Low
- C Medium
- D High



> Figure 1 – Termite Activity Zones

## Timber Usage and Selection

Using the right timber for external structures or landscaping projects is a major step in a management program that will help minimise any chance of termite activity

When working in Region D, to minimise the level of termite activity, it is recommended that all exposed timber be either treated to a minimum of Hazard Level 4 or be of Natural Durability Class 1.

Regions A, B and C pose a proportionally lower level of termite activity and depending on the circumstance of use, timbers of lower hazard treatment levels and other naturally termite resistant species may be appropriate.

The Australian Standard, AS3660.1: 2000 Termite management: New Buildings has two normative Appendices providing information on the use of timber.

Appendix C provides details a list of timbers that demonstrate natural resistance to subterranean termites. The following selection guide lists these timber species and by reference to Clause 3 Termite Resistance, Note 4, we have also included other imported timber species that are acceptable.

Appendix D provides guidance to the appropriate Hazard Levels for preservative-treated timbers. It also directs the user to AS1604: Timber – Preservative-treated –



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With the compliments of:



Sawn and Round for information regarding preservative treatment.

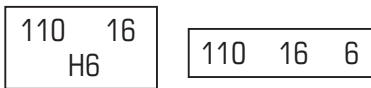
Many imported timber species are treated and therefore suitable for use in the following termite prone situations.

**Required Treatment Level**

- Inside above ground.....Hazard 2
- Outside above ground .....Hazard 3
- Outside in ground .....Hazard 4 or 5

When purchasing treated timber a simple branding system allows the buyer to select the appropriate material with confidence. Most preservative-treated timber carries either a hammered or burnt in brand mark or an indestructible tag, which provides evidence of the treatment.

The brand is a six digit number i.e. 110 16 6, where the first three numbers (110) indicate the registered treatment plant, the second group of two numbers (16) show the preservative used, with the single figure (6) designating the hazard level. This brand is usually enclosed within a border (a circle, square or rectangle, see Figure 2) and may contain the letter H as a precursor to the hazard level (H6).



> Figure 2

Some small end-section treated-timber products are exempt from this branding, i.e. fence palings and moulding that are less than 100mm<sup>2</sup> in cross-section, however the packs or bundles in which they are shipped to the reseller must be marked and therefore identification can always be checked on location.

## Termite Management

Once you have moved into your new house or finished an external timber project such as a pergola or deck, you need to make sure you don't undo the "builder's" good work.

Ensure that gardens, paving and landscaping do not breach termite

Selection Guide to Naturally Termite-Resistant Imported Timbers		
Botanical Name	Species Name	Natural Durability
Balanocarpus heimii	Chengal	1
Chamaecarpis nootkatensis	Nootka cypress	1
	Alaska cedar	
Eusyderoxylon zwageri	Belian	1
Hopea iriana	Heavy hopea	2
Hopea nutans	Giam	1
Intsia bijuga	Kwila	2
	Merbau	
Pinus caribaea	Carribbean pine	4
Pinus elliottii	Slash pine	4
Pterocarpus indicus	New Guinea rosewood	1
Sequoia sempervirens	Redwood	2
Shorea albida	Alan	2
Tectona grandis	Teak	1
Thuja plicata	Western red cedar	2
Tristania decorticata	Malabayabas	1
Tristania obovate	Pelawan	1

Note: Species not listed in AS3660.1 have been referenced from Keating and Bolza (see note 1 below) as specified.

barriers, access to sub-floor areas are maintained for regular inspection, sub-floor areas are kept dry and well ventilated and materials such as papers and timber are not stored under or around the house as this will only encourage termite activity.

Regular inspection not only of the house and sub-floor but of all timber and timber structures on the property is essential regardless of the species (treated or untreated) used, AS3660.1 recommends every 12 months, more often in higher risk areas. If detected termites can then be eradicated without any major damage occurring.

Following these simple procedures and using species or treated products that are appropriate for their purpose, imported timbers will help provide adequate termite solutions for all building and landscaping situations.

**NOTE:** 1. The additional timber species referenced in this list were obtained from

information given in Characteristics, Properties and Uses of Timbers Volume 1 – W G Keating and Eleanor Bolza.

**NOTE:** 2. For more information about timber durability and treatment and you should obtain a copy of the ATIF Timber Users' Guide No.1, Timber, Durability & External Applications.

## Further Reading

This is one brochure in a series of Imported Timber Information Bulletins numbered 1 to 5, the complete series is available from your local Timber Advisory Service or by downloading from the Technical Bulletin section of [www.timber.net.au](http://www.timber.net.au)

- Wood in Australia – Keith R Bootle published by McGraw-Hill Book Company.
- Selecting Timber – a publication of BRANZ.

For further information on this brochure, contact the Timber Advisory Service on free call 1800 044 529 or email [showroom@tdansw.asn.au](mailto:showroom@tdansw.asn.au) Level 6, 525 Elizabeth Street, Surry Hills NSW 2010. General information on the use of timber can also be found at the web page [www.timber.net.au](http://www.timber.net.au)

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