



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 such as heavy construction and domestic decking all the way through to fine joinery and craft.

This brochure covers a small range of timbers some more readily available than others in the Australian market place. Each is described along with normal applications and the most commonly needed Timber Properties including durability and hardness, which is normally assessed when considering a timber for use as a product such as flooring.

Kapur

Dryobalanops spp. (predominately D.aromatica)

Kapur is a large hardwood of the lowland and coastal forest areas of Malaysia and Indonesia, regularly growing to a height of 60 metres.

Timber Properties

- Density (average): 750 kg m³ dry
- Durability: Class 3
- Strength Group: S3 green; SD3 dry
- Hardness Rating (average): 4.0 kN green; 5.4 kN dry

The timber seasons slowly with medium shrinkage rates between 3 to 6 %, but once dry works fairly well, although some silica is often present and may blunt some tools. There is a distinct odour of camphor when freshly sawn or worked, however the timber is not a true camphor and is not moth repellent

The heartwood is a uniform yellowish, pinkish or deep reddish brown with the sapwood yellow-brown or pinkish and easy to distinguish and is lyctid borer susceptible. The texture is medium to coarse and very even and finishes cleanly, but if the timber is wet the wood will blacken when worked with iron tools or coated with ferrous based products.

In Malaysia and Indonesia Kapur is used as general construction timber, as well as for both internal and external finishing materials particularly exposed beams, door and window joinery, staircase material and furniture. In Australia large quantities have been imported and used for similar applications over the years with the timber highly prized for external joinery and in particular door and window sills and more recently decking, as the timber in a non-ground contact situation exhibits a Durability Class 2 characteristic.

Kempas

Koompassia malaccensis

Kempas is a large hardwood of the lowland forests and swampy regions of the island states of Malaysia and Indonesia normally growing to height of about 55 metres.

A similar species Tualang, Koompassia excelsa, which also grows in the Philippines is often mixed with Kempas however, as is the case from Malaysia, it should be considered separately.

Timber Properties

- Density (average): 1000 kg m³ green; 850 kg m³ dry
- Durability: Class 3
- Strength Group: S2 green; SD2 dry
- Hardness Rating (average) (Provisional): 8.0 kN green; 9.0 kN dry

The timber dries quickly with low shrinkage rates between 2 to 3%, but has a tendency to split so care should be taken in the process, although it is very stable in service. No silica is present, however being so hard the timber is difficult to work particularly with hand tools.

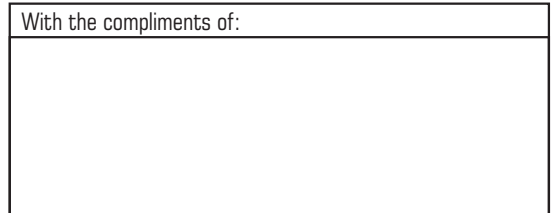
The heartwood is dark pink to reddish brown darkening with age and often having yellowish streaks which slightly confuse it with the sapwood which is pale yellow to light pinkish brown. Apart from these streaks it is usually easy to define and is susceptible to lyctid borer attack.

In Malaysia and Indonesia, Kempas is often used as high quality finishing timber particularly for parquetry, strip flooring, panelling and other joinery and when treated, for external building timbers such as posts and beams and also for commercial application like bridges and wharfs. In Australia most of the timber is used for internal joinery, step treads, window sills and flooring.



Kempas has a buttress with high flanges. Photo courtesy of the Malaysian Timber Council

With the compliments of:



This publication was produced by the Australian Timber Importers Federation, in conjunction with the Forest and Wood Product Research and Development Corporation. Australian Timber Importers Federation – A federation of timber

importer association, consisting of: NSW Timber Importer Association; Victoria Timber Importer Association; Queensland Timber Importer Association; South Australia Timber Importer Association



Keruing

Dipterocarpus spp.

The other common name used in Australia is Apitong and although there are over 70 species of the Dipterocarpus grouping other common names like Eng, Gurjun, Yang and Bagac are not used in Australia.

Keruing is a medium to large hardwood native to all the areas of South East Asia stretching as far as India, Sri Lanka and Burma. It grows in a very wide range of soil and climatic conditions from the low sea level forests to very high mountain areas and with a height range from 30 to 50 metres.

Timber Properties

- Density Range: 800–950 kg m³ green; 600–750 kg m³ dry
- Durability: Class 3/4
- Strength Group: S3 green; SD3 dry
- Hardness Rating (average) (Provisional): 3.5 kN green; 5.5 kN dry

The timber needs to be slowly and carefully dried to avoid splitting and end checking because of its medium to high shrinkage rate between 3.5 to 7%. It does work well when processed correctly but some tearing may occur on quartercut faces.

The texture of the timber varies greatly but is usually fine to coarse generally straight grained and lacking in any distinct figure. The high presence of resin in some of the species can make it difficult to glue and paint.

Because of the wide species range heartwood colour is quite varied from pinkish brown, purple, orange-pink to the most common pale to dark reddish brown

with most darkening with age. The sapwood, which is lyctid borer susceptible, is usually paler, from light grey to pale yellowish brown being up to 100mm in width and is sometimes difficult to distinguish.

In South East Asia Keruing is used for general building and joinery applications and commonly in commercial flooring products such as container bases and truck trays. Although only small quantities are imported into Australia it generally tends to be the higher grade timber being used for internal joinery such as staircase material, furniture and flooring.

Taun

Pometia spp. (predominately P.pinnata some P.tomentose)

Other common name Malugay

Taun is a medium to large sized hardwood widely distributed throughout most of South East Asia stretching from Sri Lanka through the Andaman Islands all the way to New Guinea and across to Samoa. It is found in a very wide range of growing conditions from swampy areas, river flats, lowland forests and up to open ridge type spaces in high mountainous conditions and although not very large they reach average heights between 25 to 45 metres.

Timber Properties

- Density Range (average): 700–900 kg m³ green; 680–850 kg m³ dry
- Durability: Class 3
- Strength Group: S4 green; SD4 dry
- Hardness Rating (average): 4.2 kN green; 6.5 kN dry

Care needs to be taken in the drying process, with medium shrinkage rates between 3.5 to 5.5% and reconditioning is required to avoid twisting as well as face and end splitting. When dry, the timber works well with both hand and machine tools and glues and takes all fixings satisfactorily.

Given the wide range of distribution the colour of the heartwood does vary slightly from red, purplish red to red brown with the sapwood, which is lyctid borer susceptible, pale pink to pale reddish brown and usually easy to distinguish. The texture is quite uneven varying from fine to coarse with an occasional ribbon or figure on the backsawn face.

Taun is used for many applications throughout Asia, general construction, boatbuilding, joinery, wood turning, tool handles, carving, toy making, flooring and joinery, and although only small quantities come to Australia it has similar uses such as furniture, joinery, wood turning, craft and flooring.

Further Reading

This is one Guide in a series of Imported Timber Species Guides numbered 3.1 to 3.9, the complete series is available from your local Timber Advisory Service or by downloading from the Technical Bulletin section of 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 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



FWPRDC is jointly funded by the Commonwealth government and the Australian forest and wood products industry

Important notice: The information and advice provided in the publication is intended as a guide only. As successful design and construction depends upon numerous factors outside the scope of this publication, the Forest and Wood Product Research Corporation accepts no responsibility for specifications in, nor work done or omitted to be done in reliance on this information sheet. Whilst all care has been taken to ensure the accuracy of the information contained in this publication, the Forest and Wood Product Research Corporation disclaims, to the full extent permitted by law, all and any liability for any damage or loss, whether direct, indirect, special or consequential, arising directly or indirectly out of use of or reliance on this guide, whether as a result of the Forest and Wood Product Research Corporation negligence or otherwise.