

Technical Information > Timber Species Database

> Meranti, dark red



Shorea spp, Shorea pauciflora, Shorea acuminata, Shorea platycarpa, Shorea platyclados, Shorea curtisii

Also known as: dark red meranti, red lauan, dark red seraya, oba suluk



Wood type Hardwood

Shorea pauciflora King. *S. curtisii* Dyer ex King (in part), *S. acuminata* (in part), *S. platycarpa* (in part), *S. platyclados* are the principal species producing dark red meranti from Malaysia.

Introduction

The alternative Malaysian name for the wood of *S. pauciflora* is nemesu. *Shorea pauciflora* King. is the principal species producing dark red seraya from Sabah, locally known also as oba suluk.

Many species of *Shorea* appear on the [IUCN Red List](#) of Threatened Species and are classified as:

- **CR** – Critically Endangered: at very high risk of extinction in the wild
- **EN** – Endangered: at high risk of extinction in the wild
- **VU** – Vulnerable: at risk of extinction.

Environmental

Not listed in CITES. Believed available from well-managed sources. Check certification status with suppliers.

Distribution Malaysia

The Tree The various species of Shorea grow to a height of 45m or so and a diameter of 1.2m or a little more, with long, clean, cylindrical boles above small buttresses. Sapwood lighter in colour and distinct from the heartwood which is red-brown darkening to a dark red; planed surfaces fairly lustrous, stripe figure on radial surfaces. Grey-coloured narrow streaks are often present on all longitudinal surfaces, caused by concentric layers of resin canals. The texture is rather coarse but even, and the grain is interlocked and wavy. The wood weighs on average, 710 kg/m³ when dried.

The Timber

The various types of meranti/seraya are reported to dry rapidly and well, with little degrade. Some slight distortion and surface checking may occur in the denser types. 'Malayan Forest Service Trade Leaflet No 8' gives the following information regarding the air drying times for red meranti dried under cover in Malaysia. From about 60 per cent moisture content to 18 per cent moisture content:-

Drying

25mm boards 2 to 3 months
38mm boards 3 to 4 months
50mm boards approximately 5 months.

There is a wide variation in the strength properties of the various merantis and red seraya due to the differences in density and the number of species involved. Large, over-mature logs are frequently spongy in the heart, the wood in these areas being weak and brittle. Despite the fact that the best type of light red meranti is almost equal in strength to the weakest type of dark red meranti, there is nevertheless on average, a distinct difference in mechanical properties. The average figure for strength and stiffness in bending and compression for dark red meranti is about 20 per cent higher than that for light red meranti; in shear there is about 10 per cent difference, and in hardness, over 30 per cent. The Malayan Forest Service prepared the following table, on the basis of mechanical test results, where the mechanical properties of six other timbers are compared with those for light red meranti, the data for which are expressed in each case as 100.

Strength

Timber Maximum Modulus Maximum Side End Shear
load in of crushing hardness hardness
bending elasticity strength

light red meranti 100 100 100 100 100 100
dark red meranti 122 121 125 139 131 111
Central American mahogany 118 84 112 116 112 -
sapele - 96 120 169 157 -
Scots pine 76 86 74 77 69 87
oak 105 86 101 214 181 135
teak 146 108 145 186 137 122

According to these values, light red meranti is almost equal to oak in strength properties, but oak is much harder, while Scots pine has only about 75 per cent of the general strength of light red meranti. White and yellow meranti are reported to have similar, properties to those of American mahogany, but with lower resistance to splitting in the tangential plane in the case of white meranti.

Working Qualities

Medium - The wood of the various species work well and in general are capable of a good smooth surface, but a reduction of cutting angle to 20° is beneficial where a tendency for the grain to tear becomes apparent. The dulling effect on saws and cutters varies somewhat with the species, but is usually quite small, except in the case of white meranti which generally contains a fairly high amount of silica in the ray cells. The various species can be glued, nailed and screwed satisfactorily, and can be stained and polished quite well after suitable filling.

Durability ? Slightly durable (Can vary in durability)

Treatability ? Extremely difficult
Moderately easy (Sapwood)

Moisture Movement ? Small

Density (mean, Kg/m³) ? 710 (Density can vary by 20% or more)

Texture ? Medium

Availability ? Available at specialist timber merchant

Price ? Medium

Use(s) ? Cladding, Joinery - Exterior, Joinery - Interior

Colour(s) ? Reddish brown (Medium to dark in shade), Red