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
Introduction	*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. 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.
Environmental	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. Not listed in CITES. Believed available from well-managed sources. Check certification status with suppliers.
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.
The Timber	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.
Drying	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:-
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 load in bending	Modulus of elasticity	Maximum crushing strength	Side hardness	End hardness	Shear
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/m^3)	710 (Density can vary by 20% or more)
Texture	Medium
Availability	Regular
Price	Low to medium
Use(s)	Cladding, Exterior joinery, Interior joinery, Plywood
Colour(s)	Reddish brown (Medium to dark in shade), Red