



Nyatoh (*Dichopsis Elliptica* syn *P. Ellipticum*)

Botanical Name:	<i>Dichopsis elliptica</i> syn. <i>P. ellipticum</i>
Other Common Names:	Nyatoh, Panchoti, Palla, Pali, Kat illupei, Panchotipala, Palvadindan, Palimaran, Kei pala, Panchonta, Ippa, Ippi, Illupei
Common Uses:	Beams, Blinds, Boxes and crates, Building construction, Cabin construction, Concrete formwork, Construction, Decorative plywood, Factory construction, Form work, Foundation posts, Framing, Heavy construction, Joists, Light construction, Millwork, Packing cases, Planks, Plywood, Porch columns, Rough construction, Shutters, Sills, Structural work, Studs, Warehouse construction, Windows
Region:	Oceania and S.E. Asia
Country:	India, Malaysia, Papua New Guinea, Philippines

Numerical Values for: *Dichopsis elliptica* syn. *P. ellipticum*

<u>Category</u>	<u>Green</u>	<u>Dry</u>	<u>Unit</u>
Bending Strength		15600	psi
Crushing Strength (Perp.)		1085	psi
Max. Crushing Strength		8540	psi
Stiffness		2042	1000 psi
Hardness		1195	lbs
Shearing Strength		1200	psi
Specific Gravity	0.53	0.60	
Weight	47	40	lbs/cu.ft.
Density (Air-dry)		40	lbs/cu.ft.

Tree & Wood Descriptions for: *Dichopsis elliptica* syn. *P. ellipticum*

Product Sources	Some material from this species is reported to be available from environmentally responsible or sustainably managed sources.
Tree Data	The trees are reported to attain a height of 100 feet (30 m) or more, with trunk diameter of up to 36 inches (90 cm). Boles are sometimes fluted.
Sapwood Color	The sapwood is not clearly demarcated from the heartwood and is described as yellowish to straw in color. Width is reported to be usually 1.5 to 3 inches (3.8 to 7.6 cm).
Heartwood Color	Heartwood color is reported to vary from pale pink to reddish brown or purple brown, sometimes with darker streaks.
Grain	The grain is straight to shallowly interlocked. The timber is reported to resemble Makore, (<i>Tieghemella heckellii</i>) in appearance, and has a moire or watered silk figure.
Texture	The texture is medium to coarse, and even.
Odor	Freshly-milled wood is reported to have a slightly unpleasant odor which is described as sour. There is no distinct taste.
Movement in Service	The material is reported to exhibit medium movement in use.
Natural Durability	The heartwood is reported to have moderate resistance to decay, and is vulnerable to termite attack. The sapwood is reported to be susceptible to attack by powder-post beetle Resistance to Impregnation The sapwood is reported to be permeable but the heartwood is very resistant to preservative treatment.
Toxic Constituents	Sawdust from some <i>Dichopsis</i> timbers is reported to cause nose, skin, and throat irritation in some individuals.
Silica Content	Some <i>Dichopsis</i> timbers are reported to be siliceous.
Veneering Qualities	This species is reported to peel well into veneers, and gluing quality is rated as

above average.

Comments

Dichopsis or Palaquium and Payena are reported to be two separate but closely related genera, which have very similar characteristics. Timber produced by species in the two genera are often grouped in either the Nyatoh or Bitis class. Nyatoh is a commercial grouping of species whose air-dry weights fall mostly between 38 and 45 pcf or 610 and 720 kg/cc, but may be up to 55 lb/cu.ft (880 kg/cu.m). They are reported to be often mixed and marketed with other light to medium-weight, red-colored timbers. Timbers in the Bitis class are described as heavier, and have weights greater than 55 lb/cu.ft (880 kg/cu.m). They are referred to as Nyatoh batu in Sabah (Malaysia).

Working Properties for: *Dichopsis elliptica* syn. *P. ellipticum*

Blunting Effect	Cutting edges may blunt severely, depending upon the amount of silica in the wood.
Cutting Resistance	Sawing properties are reported to vary with species. Siliceous timbers tends to be very abrasive and are very difficult to saw with ordinary saws. There may also be some gum build-up on cutters.
Planing	Dichopsis species containing silica and gum are reported to be rather difficult to work in planing, moulding, boring, and other woodworking operations since they tend to dull and gum-up cutting tools rapidly. Non-siliceous species are reported to be relatively easy to work, and finish to yield a smooth surface.
Polishing	Timber free from silica are reported to polish well.
Response to Hand Tools	Response to hand tools is reported to depend on silica and gum content.

Drying for: *Dichopsis elliptica* syn. *P. ellipticum*

Ease of Drying	The wood is reported to dry slowly and fairly easily. Shrinkage from Green to 12% MC Radial - 1.3 to 3.0% Tangential - 2.3 to 4.0%
Drying Defects	The timber may end-split and warp during drying.
Kiln Schedules	T6 - D2 (4/4); T3 - D1 (8/4) US Schedule E - United Kingdom

*Credits for information:
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