



Teak – *Tectona grandis*

Other Names: Mai Sak, Pahi, Jati Sak

Region of Origin: Asia

SPECIES OVERVIEW:

Teak is a uniform golden-brown colour often figured with darker chocolate-brown markings. Highly prized for its durability, stability and low shrinkage, as well as its appearance, Teak enjoys strong demand in luxury boatbuilding, furniture and joinery. Consequently it is significantly more expensive than most timbers.

MAIN USES:

Extensively used for ship and boatbuilding in both exterior applications for decking, rails, hatches etc. as well as interior joinery. Also used in high class furniture, including outdoor furniture, cabinetry and joinery. Teak's high oil content also makes it suitable in applications, requiring resistance to acids such as chemical vats.

WORKING PROPERTIES:

Teak offers medium resistance to tools but severe blunting effect on cutters. Pre-boring is necessary

for nailing. Gluing is good on freshly planed or sanded surfaces. Stains well and takes a satisfactory finish, especially an oil finish.

MECHANICAL PROPERTIES:

This hard, medium density wood has medium bending strength, high crushing strength combined with low stiffness and resistance to shock loads. It has great dimensional stability but is fissile and brittle. Teak has moderate steam bending properties.

AVAILABILITY:

Specifications stocked at Rosenfeld Kidson are: Sawn 25mm, 40mm, 50mm, 63mm and 75mm thicknesses in varying fixed and mixed widths in short, medium and long length specification.

GRADING:

FEQ (First European Quality).

DENSITY (kg/m ³)*:	650
DURABILITY:	Very durable

STRENGTH GROUP:	SD5
MOR (MPa):	102
MOE(GPa):	11.9
JANKA(kN):	4.6

SHRINKAGE GREEN TO 12% M.C.	Tangential	Radial
	2.5	1.5

*Air Dry Density (kg/m³) is average indication only and actual value may vary. Refer to timber properties tables over page for strength, shrinkage and durability classifications.



STRENGTH GROUPINGS:

Minimum values for strength groups (unseasoned timber)			
<i>(units are Mpa = 145 lb/sq.inch)</i>			
Strength group	Modulus of rupture	Modulus of elasticity	Maximum crushing strength
S1	103	16300	52
S2	76	14200	43
S3	73	12400	36
S4	62	10700	31
S5	52	9100	26
S6	43	7900	22
S7	36	6900	18

Minimum values for strength groups (seasoned timber)			
<i>(units are Mpa = 145 lb/sq.inch)</i>			
Strength group	Modulus of rupture	Modulus of elasticity	Maximum crushing strength
SD1	150	21500	80
SD2	130	18500	70
SD3	110	16000	61
SD4	94	14000	54
SD5	78	12500	47
SD6	65	10500	41
SD7	55	9100	36
SD8	45	7900	30

SHRINKAGE CLASSIFICATIONS:

Description of shrinkage	Shrinkage from Green to Oven-dry (12% MC)	
	(% before reconditioning)	
	Tangential	Radial
Very low	0 - 3.5	0 - 2
Low	3.5 - 5.0	2 - 3
Medium	5.0 - 6.5	3 - 4
High	6.5 - 8.0	4 - 5
Very high	> 8.0	> 5

DURABILITY CLASSIFICATIONS:

Grade of durability	Approximate service life (years)		
	Fully protected	Above ground, exposed	In-ground, exposed
Very durable	>50	>40	>25
Durable	>50	15-40	15-25
Moderately durable	>50	7-15	5-15
Non-durable	>50	0-7	0-5