Rosenfeld Kidson

Species Fact Sheet

Radiata – *Pinus radiata*

Other Names: Monterey Pine

Region of Origin: New Zealand

SPECIES OVERVIEW:

This softwood has large, wide, pale-coloured sapwood, which is distinct from the pinkish-brown heartwood. There is moderate growth-ring figure resulting in a relatively uniform and fine texture. The timber has moderate to high lustre and readily accepts preservative treatment.

MAIN USES:

Radiata has a wide range of applications. Kiln dried clear grades are used for mouldings and finishing lines in general construction and interior joinery. Clear grades treated with preservative are used in exterior joinery situations while treated framing and engineering grades are used for exterior situations in general construction. Treated roundwood is extensively used for poles and posts.

WORKING PROPERTIES:

Works well with little dulling effect on tools, providing a clean finish except around knots that tend to tear. Nail holding is good, gluing is satisfactory and the surfaces will provide a satisfactory finish.

MECHANICAL PROPERTIES:

The bending strength and stiffness qualities are low, crushing strength and resistance to shock loads is medium. It is not suitable for steam bending purposes.

AVAILABILITY:

Specifications stocked at Rosenfeld Kidson are: Sawn 25mm, 40mm, 50mm, 75mm and 100mm thicknesses are available kiln dried in H3 treated and untreated options. TG&V panelling profiles.

GRADING:

H3.2 CCA treated and untreated.

DENSITY (kg/m3)*:	480
DURABILITY:	Non-durable

STRENGTH GROUP:	SD6
MOR (MPa):	71
MOE(GPa):	9.7
JANKA(kN):	3.4

SHRINKAGE GREEN TO 12% M.C.	Tangential	Radial
	6.0	3.0

*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.

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Timber Properties

STRENGTH GROUPINGS:

Minimum values for strength groups (unseasoned timber)			
(units are Mpa = 145 lb/sq.inch)			
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)			
(units are Mpa = 145 lb/sq.inch)			
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

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