Technical Data Sheet

Species, Properties and Uses
Species Tables

16b

Recommended Practice / March 2006

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To be read in conjunction with TDS 16a

If you need more information on the subject of this data sheet, please contact Timber Queensland. We need your feedback to ensure that future revisions continue to meet the needs of timber users.

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1	2	3		4		5		6	7		8	9	10	11	12	13	14										15
Standard Trade Name	Botanical Name	Strength Group		Joint Group		Density (kg/m³)		Hardness (seasoned) (kN)	Toughness		Tangential Shrinkage %	% Unit Tangential Movement	#Durability Class (*Termite Resistant)	Lyctid Susceptibility	Bushfire Rated	Colour	Common Uses										Availability varies region by region
		Unseasoned	Seasoned	Unseasoned	Seasoned	Unseasoned	Seasoned		Unseasoned	Seasoned							In Ground	Framing Above Ground-Exposed	Framing Above Ground-Protected	Decking	Cladding	Internal Flooring	Panelling	External Joinery	Internal Joinery	
ash, alpine	Eucalyptus delegatensis	S4	SD4	J3	JD3	1050	650	5.0	M	M	8.5	0.35	4/3	S	-	W	-	-	S	-	-	O	O	-	O	R
ash, crows	Flindersia australis	S2	SD3	J1	JD1	1050	950	11.0	M	M	4.2	-	1/1	S	-	W	-	-	-	O	-	O	-	-	-	L
ash, mountain	Eucalyptus regnans	S4	SD3	J3	JD3	1050	650	4.9	M	M	13.3	0.36	4/3	NS	-	W	-	-	-	-	-	O	O	-	O	R
ash, silvertop	Eucalyptus sieberi	S3	SD3	J2	JD2	1100	850	9.8	M	M	10.6	0.36	3/2	NS	✔	W-P	-	-	O	-	-	-	-	-	-	L
balau, yellow (selangan batu)	Shorea spp.	S2	SD3	J2	JD2	1150	900	-	-	-	7.0	-	2/1	S	✔*	R	-	O	O	O	O	O	O	-	-	R
bangkirai	Shorea laevifolia	S3	SD3	-	-	1050	850	-	-	-	5.0	-	2/2	S	-	W	P	O	-	O	-	O	O	-	-	L
belian (ulin)	Eusideroxylou zwageri	S1	SD1	-	-	1300	1000	13.0	-	-	4.5	-	1/1	NS	-	B	-	-	-	O	-	-	-	-	-	L
beech, myrtle	Nothofagus cunninghamii	S4	SD5	J3	JD3	1100	700	5.9	-	-	4.7	0.32	4/3	NS	-	P	-	-	O	-	O	O	O	-	O	L
bloodwood, red	Corymbia intermedia	S3	SD3	-	-	1150	900	8.8	-	-	4.0	-	1*/1	S	-	R	O	-	-	-	-	-	-	-	-	L
blackbutt	Eucalyptus pilularis	S2	SD2	J2	JD2	1150	900	8.9	M	M	7.3	0.37	2*/1	NS	✔	W	-	O	O	O	O	O	O	-	-	R
blackbutt, New England	Eucalyptus andrewsii	S3	SD3	J2	JD2	1150	850	9.2	M	M	11.4	0.36	2*/2	S	-	W	-	O	O	-	-	O	O	-	-	R
blackbutt, W.A.	Eucalyptus patens	S4	SD5	J2	JD2	1100	850	6.9	L	L	10.0	-	2/1	S	-	B	-	-	S	O	O	O	O	-	-	L
blackwood	Acacia melanoxylan	S4	SD4	J3	JD3	1050	650	4.9	-	-	3.9	0.27	3/-	S	-	B	-	-	O	-	O	O	O	-	O	R
box, brush	Lophosteman confertus	S3	SD3	J2	JD2	1100	900	9.1	M	M	9.7	0.38	3*/3	NS	-	B	-	-	-	-	O	O	O	-	-	L
box, grey coast	Eucalyptus bosistoana	S1	SD1	J1	JD1	1200	1100	13.1	H	H	8.2	0.42	1*/1	S	-	W	O	-	-	O	-	O	-	-	-	R
brownbarrell	Eucalyptus fastigata	S4	SD4	J3	JD3	1100	750	5.5	M	M	11.8	0.34	4/3	S	-	W	-	-	O	-	-	-	-	-	-	L
calantas (kalantas)	Toona calantas	S6	SD7	-	JD4	-	500	-	L	L	7.0	-	2/1	S	-	R	-	-	-	-	-	-	O	O	O	R
candlebark	Eucalyptus rubida	S5	SD5	J3	JD3	1100	750	5.9	M	L	12.2	0.34	3/3	S	-	P	-	-	O	-	-	-	-	-	-	L
cedar, western red	Thuja plicata	S7	SD8	-	JD6	-	350	-	L	L	3.0	-	3*/2	NS	-	W-B	-	-	-	-	O	-	O	O	O	R
cypress	Callitris glaucophylla	S5	SD6	J3	JD3	850	700	6.1	L	L	2.5	0.26	2*/1	NS	-	WB	-	O	O	O	O	O	O	-	-	R
fir, Douglas (oregon)	Pseudotsuga menziesii	S5	SD5	J4	JD4	710	550	3.0	L	L	4.0	-	4/4	NS	-	W	-	-	O	-	-	-	O	-	O	R
gum, blue southern	Eucalyptus globulus	S3	SD3	J2	JD2	1150	1000	11.5	M	H	7.7	0.40	3/2	S	-	W	-	-	O	-	-	O	O	-	-	R
gum, blue Sydney	Eucalyptus saligna	S3	SD3	J2	JD2	1100	850	8.1	M	M	9.5	0.35	3/2	S	-	P	-	-	O	-	-	O	O	-	-	R
gum, grey	Eucalyptus propinqua	S1	SD2	J1	JD1	1250	1050	14.0	M	M	7.0	-	1/1	NS	-	R	O	O	-	-	-	-	-	-	-	R
gum, grey mountain	Eucalyptus cypellocarpa	S3	SD2	J2	JD2	1100	900	10.3	M	M	11.9	0.39	3/2	S	-	P	-	-	-	-	-	O	O	-	O	R
gum, manna	Eucalyptus viminalis	S4	SD4	J3	JD2	1100	800	5.8	M	M	12.0	0.34	4/3	S	-	P	-	-	-	-	-	O	O	-	O	R
gum, mountain	Eucalyptus dalrympleana	S4	SD5	J3	JD3	1100	700	5.7	M	M	11.5	0.35	4/3	S	-	P	-	-	O	-	-	O	-	-	O	L
gum, red, forest	Eucalyptus tereticornis	S3	SD4	J1	JD1	1150	1000	11.3	M	M	8.6	0.34	1*/1	NS	✔*	R	O	O	O	O	O	O	-	-	-	R

Durability Class - Inground/above ground

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1	2	3		4		5		6	7		8	9	10	11	12	13	14									15
Standard Trade Name	Botanical Name	Strength Group		Joint Group		Density (kg/m³)		Hardness (seasoned) (kN)	Toughness		Tangential Shrinkage %	% Unit Tangential Movement	#Durability Class (*Termite Resistant)	Lyctid Susceptibility	Bushfire Rated	Colour	Common Uses									Availability varies region by region
		Unseasoned	Seasoned	Unseasoned	Seasoned	Unseasoned	Seasoned		Unseasoned	Seasoned							In Ground	Framing Above Ground-Exposed	Framing Above Ground-Protected	Decking	Cladding	Internal Flooring	Panelling	External Joinery	Internal Joinery	
gum, river, red	Eucalyptus camaldulensis	S5	SD5	J2	JD2	1150	900	9.7	M	L	8.9	0.31	2*/1	S	✔	R	O	O	O	O	O	O	O	O	-	L
gum, rose	Eucalyptus grandis	S3	SD4	J2	JD2	1100	750	7.3	M	M	7.5	0.30	3/2	NS	-	P	-	-	O	-	-	O	O	-	-	R
gum, shining	Eucalyptus nitens	S4	SD4	J3	JD3	1100	530	5.8	M	M	12.8	0.33	4/3	S	-	W	-	-	O	-	-	O	-	-	-	L
gum, spotted	Corymbia maculata/ Corymbia citridora	S2	SD2	J1	JD1	1200	1100	10.1	H	H	6.1	0.38	2*/1	S	✔	B	-	O	O	O	O	O	-	O	-	R
hardwood, Johnstone River	Backhousia bancroftii	S2	SD3	J1	JD1	1150	950	-	-	-	6.4	0.39	3/2	NS	-	B	-	-	-	-	O	-	-	-	-	L
hemlock western	Tsuga heterophylla	S6	SD6	J4	JD4	800	500	2.7	L	L	5.0	-	4/4	NS	-	W	-	-	O	-	-	-	O	-	O	L
ironbark, grey	Eucalyptus paniculata	S1	SD1	J1	JD1	1250	1100	16.3	H	H	7.5	0.39	1*/1	NS	-	WRB	O	O	O	O	-	O	-	-	-	R
ironbark, red	Eucalyptus sideroxylon	S2	SD3	J1	JD1	1200	1100	11.9	H	M	6.3	0.37	1*/1	S	✔	R	O	O	-	O	-	O	-	-	-	R
ironwood Cooktown	Erythrophleum chlorostgchys	S1	SD1	-	-	-	1220	13.0	-	-	3.0	-	1/1	S	-	RB	O	-	-	-	-	O	-	-	-	L
jarrah	Eucalyptus marginata	S4	SD4	J2	JD2	1100	800	8.5	L	L	7.4	0.30	2*/2	S	✔*	R	-	O	O	O	O	O	O	O	O	R
kapur	Dryobalanops spp.	S3	SD4	J2	JD2	1100	750	5.4	L	M	6.0	-	3/2	NS	-	WPR	-	-	O	-	-	-	-	-	-	L
karri	Eucalyptus diversicolor	S3	SD2	J2	JD2	1150	900	9.0	M	M	9.9	0.40	3/2	NS	-	P	-	O	O	-	-	O	O	-	O	R
keruing	Dipterocarpus spp.	S3	SD3	J2	JD2	950	750	4.6	H	H	9.5	-	3/3	S	-	R	P	P	O	-	-	O	-	-	-	L
kwila (merbau)	Intsia bijuga	S2	SD3	J2	JD2	1150	850	8.8	M	M	2.5	-	3*/1	S	✔	R	-	O	O	O	-	O	O	O	-	R
mahogany, Philippine, red, dark	Shorea spp.	S5	SD6	-	JD3	-	650	3.2	-	-	4.0	-	3/3	S	-	R	-	-	-	-	-	-	-	-	O	R
mahogany, Philippine, red, light	Shorea, Pentacme, Parashorea spp.	S6	SD7	-	JD4	-	550	2.6	-	-	6.5	-	4/4	S	-	W	-	-	-	-	-	-	O	-	O	R
mahogany, red	Eucalyptus resinifera	S2	SD3	J1	JD1	1200	950	12.0	M	M	6.3	0.34	2*/1	S	-	R	-	O	O	-	-	O	-	-	-	L
mahogany, southern	Eucalyptus botryoides	S2	SD3	J2	JD2	1100	900	9.2	M	M	9.8	0.37	3*/2	NS	-	R	-	-	O	-	-	O	-	-	-	L
mahogany, white	Eucalyptus acmenioides	S2	SD3	J1	JD2	1150	1000	10.1	M	M	5.4	0.34	1*/1	NS	-	W	-	O	O	O	-	O	-	-	-	R
marri	Eucalyptus calophylla	S3	SD3	J2	JD2	1150	850	7.1	M	M	6.6	0.34	3/3	S	-	W	-	-	O	-	-	O	O	-	-	L
meranti, red, dark	Shorea spp.	S5	SD6	J4	JD3	1100	650	3.5	-	-	5.0	-	4/2	S	-	R	-	-	-	-	-	-	O	-	O	R
meranti, red, light	Shorea spp.	S6	SD7	-	JD5	-	400	2.4	-	-	4.4	-	4/3	S	-	P	-	-	-	-	-	-	O	-	O	R
messmate	Eucalyptus obliqua	S3	SD3	J3	JD3	1100	750	7.4	M	M	11.3	0.36	3/3	S	-	W	-	-	O	-	-	O	O	-	O	R
messmate, Gympie	Eucalyptus cloeziana	S2	SD3	J1	JD1	-	955	-	-	-	6.0	-	1*/1	NS	-	W	O	O	O	O	-	O	-	O	-	L
oak, American	Quercus spp.	S6	SD6	-	-	-	750	-	-	-	5.0	-	4/-	S	-	W	-	-	-	-	-	O	O	-	O	L
pelawan (Northern Box)	Tristania spp.	S2	SD2	J1	JD1	1145	920	-	M	M	7.0	-	2/2	NS	-	PR	-	-	-	O	-	O	-	-	-	R

Durability Class - Inground/above ground

1	2	3		4		5		6	7		8	9	10	11	12	13	14										15
Standard Trade Name	Botanical Name	Strength Group		Joint Group		Density (kg/m³)		Hardness (seasoned) (kN)	Toughness		Tangential Shrinkage %	% Unit Tangential Movement	#Durability Class (*Termite Resistant)	Lyctid Susceptibility	Bushfire Rated	Colour	Common Uses										Availability varies region by region
		Unseasoned	Seasoned	Unseasoned	Seasoned	Unseasoned	Seasoned		Unseasoned	Seasoned							In Ground	Framing Above Ground-Exposed	Framing Above Ground-Protected	Decking	Cladding	Internal Flooring	Panelling	External Joinery	Internal Joinery	
peppermint, narrow-leaved	Eucalyptus australiana	S4	SD4	J3	JD2	1100	800	7.5	L	L	13.2	0.36	4/3	S	-	P	-	-	O	-	-	-	-	-	-	L
pine, caribbean	Pinus caribaea	S6	SD6	J4	JD4	-	550	-	-	-	5.0	0.34	4/4	NS	-	W	P	P	S	P	P	O	O	P	-	R
pine, hoop (Araucaria)	Araucaria cunninghamii	S6	SD5	J4	JD4	800	550	3.4	L	L	3.8	0.23	4/4	NS	-	W	P	P	S	P	P	O	O	P	O	R
pine, radiata	Pinus radiata	S6	SD6	J4	JD4	800	550	3.3	M	L	5.1	0.27	4/4	NS	-	W	P	P	S	P	P	O	O	P	O	R
pine, slash	Pinus elliottii	S5	SD5	J4	JD4	850	650	3.4	L	L	4.2	0.30	4/4	NS	-	W	P	P	S	P	P	O	O	P	O	R
ramin	Gonystylus spp.	S4	SD4	-	JD3	-	650	5.8	-	-	5.5	-	4/-	S	-	W	-	-	-	-	-	O	O	-	O	L
sacau (Northern Box)	Palaquium hornei	S3	SD2	J2	JD2	1010	890	-	M	M	6.4	-	2/2	5	-	PR	-	-	-	O	O	O	O	-	-	R
stringybark, Blackdown	Eucalyptus sphaerocarpa	S3	SD3	J1	JD1	-	1000	-	-	-	7.0	-	2*/1	S	-	B	-	O	O	-	O	-	-	-	-	L
stringbark, brown	Eucalyptus baxteri	S3	SD3	J2	JD2	1100	850	7.5	M	M	10.4	0.33	3/2	NS	-	B	-	-	O	-	-	O	-	-	-	L
stringbark, white	Eucalyptus eugenioides	S3	SD3	J2	JD2	1100	1000	9.0	M	M	10.6	0.36	2*/2	NS	-	P	-	O	O	O	-	O	-	-	-	L
stringbark, yellow	Eucalyptus muellerana	S3	SD3	J2	JD2	1150	900	8.6	M	M	7.5	0.37	3*/2	NS	✔*	W	-	O	O	O	-	O	-	-	-	R
tallowwood	Eucalyptus microcorys	S2	SD2	J1	JD2	1200	1000	8.6	M	M	6.1	0.37	1*/1	S	✔*	W	O	O	O	O	O	O	-	-	-	L
taun	Pometia pinnata	S4	SD4	-	JD3	-	700	-	-	-	5.5	-	3/2	S	-	R	-	-	O	-	-	O	O	-	-	R
turpentine	Syncarpia glomulifera	S3	SD3	J2	JD2	1050	950	11.6	M	M	13.0	0.35	2*/1	NS	✔	PB	O	-	-	O	-	O	-	-	-	L

Commercial Species Groups

ash, Victorian oak, Australian oak, Tasmanian	Eucalyptus spp.	S4	SD4	J3	JD3	1050	650	4.9	M	M	13.3	0.36	4/4	S	-	W	-	-	O	-	-	O	O	-	O	R
hardwood, mixed (Qld/Nth. NSW)	Eucalyptus spp. Corymbia spp.	S3	SD3	J2	JD2	1150	750	-	M	M	-	-	3/2	S	-	WPRB	-	O	O	O	O	O	O	-	-	R
softwoods, mixed Australian grown	pinus spp.	-	SD7	-	JD4	850	550	-	L	L	-	-	4/4	NS	-	W	-	-	O	-	-	O	O	-	-	R
softwoods, imported (unidentified)	mixed spp.	S7	SD8	J6	JD6	850	400	-	L	L	-	-	4/4	NS	-	W	-	-	O	-	-	-	O	-	-	R
hemfir	mixed spp.	-	SD7	-	JD5	-	-	-	L	L	-	-	4/4	NS	-	W	-	-	O	-	-	-	-	-	-	R
Spruce pine fir (SPF)	mixed spp.	-	SD7	-	JD6	-	-	-	L	L	-	-	4/4	NS	-	W	-	-	O	-	-	-	-	-	-	R

Durability Class - Inground/above ground