



American Black Walnut – *Juglans nigra*

OTHER NAMES: Black Walnut, Canaletto, Black Hickory Nut

REGION OF ORIGIN: United States

GENERAL DESCRIPTION

American Black Walnut heartwood is a rich dark chocolate brown to purplish-black, mostly straight grained but with wavy or curly grain occasionally present. The texture is mildly coarse. Walnut is usually supplied steamed, to darken the pale coloured sapwood. US forests have a long-standing tradition of sustainable forest management, bolstered by a strong legal framework for environmental conservation.

MAIN USES

Furniture, cabinet making, interior joinery, boatbuilding, musical instruments, rifle butts and gunstocks.

WORKING PROPERTIES

Works without difficulty with hand or machine tools and has moderate blunting effect. Holds nails or screws well, glues satisfactorily and polishes to a high finish.

MECHANICAL PROPERTIES

This is a tough, hard timber of medium density, with moderate bending and crushing strengths, and low stiffness. It has good steam bending classification.

AVAILABILITY

Specifications stocked at Rosenfeld Kidson are:
Sawn 25mm, 40mm, 50mm and 75mm thicknesses in mixed widths.

GRADING

Prime (FAS).

DENSITY (kg/m³)*:	609
DURABILITY:	Very durable

STRENGTH GROUP:	SD4
MOR (MPa):	101
MOE(GPa):	11.6
JANKA(kN):	4.5

SHRINKAGE GREEN TO 12% M.C.	Tangential	Radial
	7.8	5.5

*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.

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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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