

Wood species range and properties

- **Afrormosia**

Appearance: The heartwood is initially orange-brown or brown in colour, but turns into brownish-yellow, with darker streaks upon exposure. It has also been described as warm crimson-brown, lightened by bands of a bright golden-brown shade. The annual rings are usually distinct because of darker bands of dry-season material. The timber is reported to resemble fine-grained Teak (*Tectona grandis*) in appearance, but without the oily texture. Tannin in the wood can cause blue stains



Botanical Name: *Pericopsis Elata*

Common Uses: Agricultural implements, Boat building (general), Boat building, Boat building: decking, Boat building: framing, Boxes and crates, Cabinetmaking, Canoes, Carvings, Chairs, Chests, Concealed parts (Furniture), Decks, Decorative veneer, Desks, Dining-room furniture, **Domestic flooring**, Drawer sides, Excelsior, Figured veneer, Fine furniture, Floor lamps, Flooring, Furniture, Furniture components, Furniture squares or stock, Furniture, Hatracks, Heavy construction, Interior construction, Joinery (external): ground contact, Joinery, Kitchen cabinets, Lifeboats, Light construction, Living-room suites, Millwork, Mine timbers, Musical instruments, Office furniture, **Parquet flooring**, Particleboard, Plywood, Poles, Posts, Radio - stereo - TV cabinets, Railroad ties, Rustic furniture, Shipbuilding, Sporting Goods, Stair rails, Stairworks, Stools, Stringers, Sub-flooring, Tables, Tool handles, Turnery, Utility furniture, Vehicle parts, Veneer, Veneer: decorative, Wardrobes

Data Table:

Item	Green	Dry	Metric
Bending Strength	995	1357	kg/cm ²
Density		737	kg/m ³
Hardness		754	kg
Impact Strength	131	114	cm
Maximum Crushing Strength	516	695	kg/cm ²
Shearing Strength		152	kg/cm ²
Stiffness	120	129	1000 kg/cm ²
Work to Maximum Load	1.12	1.19	cm-kg/cm ³
Specific Gravity	0.54	0.63	
Weight	721	689	kg/m ³
Radial Shrinkage	3		%
Tangential Shrinkage	6		%

Comments on its properties: A great all round wood with durability and beauty. The heartwood is rated as very durable and could last for more than 25 years in contact with the ground. The timber is rarely attacked by marine borers and is highly resistant to attack by termites in West Africa. Afrormosia should not be used in contact with iron and iron compounds under moist conditions, since corrosion will promote discoloration in the wood

- **Doussie/Afzelia**

Appearance: The heartwood is light brown, often with a reddish-brown appearance.



Botanical Name: Afzelia Bipindensis

Common Uses: Boat building, Building materials, Canoes, Chemical containers, Desks, Dining-room furniture, **Domestic flooring**, Excelsior, Exterior trim & siding, Exterior uses, Fine furniture, Fixtures, **Flooring**, Framing, Furniture , Interior construction, Joinery, Lifeboats, Living-room suites, Office furniture, Parquet flooring, Shakes, Sheathing, Shingles, Shipbuilding, Siding, Sills, Stair rails, Stairworks, Stringers, **Sub-flooring**, Tables , Utility furniture, Windows.

Data Table:

Item	Green	Dry	Metric
Bending Strength		1136	kg/cm ²
Density		801	kg/m ³
Hardness		804	kg
Impact Strength		76	cm
Maximum Crushing Strength		759	kg/cm ²
Shearing Strength		146	kg/cm ²
Stiffness		131	1000 kg/cm ²
Work to Maximum Load		0.77	cm-kg/cm ³
Specific Gravity	0.59	0.62	

Comments on its properties: Doussie has outstanding durability and stability making it an excellent wood for flooring. Its hardness makes it one of the best flooring species. Doussie wood is also resistant to acid.

- **Iroko**

Appearance: A golden brown colour with variations from yellow, golden-yellow to orange. Lighter vessel lines are conspicuous on flat sawn surfaces. Large deposits of calcium carbonate, with darker coloured surrounding material are usually present. Yellow bands of soft tissue are reported to form a zig-zag pattern on all surfaces



Botanical Name: Chlorophora Excelsa

Common Uses: Agricultural implements, Boat building (general), Boat building, Boat building: decking, Boat building: framing, Boat building: planking, Boxes and crates, Bridge construction, Building materials, Cabinetmaking, Canoes, Carvings, Chairs, Chests, Concealed parts (Furniture), Cooperages, Core Stock, Decks, Decorative veneer, Desks, Dining-room furniture, **Domestic flooring**, Dowell pins, Dowells, Drawer sides, Excelsior, **Factory flooring**, Figured veneer, Fine furniture, Floor lamps, Flooring, Framing, Furniture, Furniture components, Furniture squares or stock, Furniture, Golf club heads, Hatracks, Heavy construction, Interior construction, Interior trim, Joinery (external): ground contact, Joinery, Kitchen cabinets, Lifeboats, Light construction, Living-room suites, Lock gates, Marine construction, Millwork, Mine timbers, Mouldings, Musical instruments: percussion, Office furniture, Panelling, **Parquet flooring**, Particleboard, Piling, Plain veneer, Plywood, Posts, Pulp/Paper products, Radio - stereo - TV cabinets, Railroad ties, Rustic furniture,

Shingles, Stairworks, Tables, Turnery, Vats, Vehicle parts, Veneer, Veneer: decorative, Wheel spokes, Wheels.

Data Table:

Item	Green	Dry	Metric
Bending Strength	685	954	kg/cm ²
Crushing Strength		122	kg/cm ²
Density		673	kg/m ³
Hardness		727	kg
Impact Strength	68	60	cm
Maximum Crushing Strength	319	520	kg/cm ²
Shearing Strength		112	kg/cm ²
Static Bending		554	kg/cm ²
Stiffness	86	110	1000 kg/cm ²
Toughness		417	cm-kg
Work to Maximum Load	0.63	0.70	cm-kg/cm ³
Specific Gravity	0.51	0.7	
Weight	705	705	kg/m ³
Radial Shrinkage	3		%

Comments on its properties: Iroko is an excellent wood in terms of durability and stability. Its colour variation gives it a character of its own. For marquetry flooring, Iroko is carefully selected to maintain homogeneity.

- **Mahogany (Acajou)**

Appearance: Varies from red in general to a deep reddish-brown colour. The grain can be straight, but is typically interlocked.



Botanical Name: Khaya Ivorensis

Common Uses: Boat building (general), Boat building, Boat building: decking, Boat building: planking, Cabinetmaking, Carvings, Decorative veneer, **Flooring**, Furniture , Furniture, Heavy construction, Interior construction, Joinery, Light construction, Millwork, Musical instruments, Paneling , Paneling, Plywood, Sporting Goods, Tables, Tool handles, Turnery, Vehicle parts, Veneer, Veneer: decorative.

Data Table:

Item	Green	Dry	Metric
Bending Strength	524	791	kg/cm ²
Density		512	kg/m ³
Hardness		374	kg
Impact Strength	63	53	cm
Maximum Crushing Strength	266	448	kg/cm ²
Shearing Strength		108	kg/cm ²
Stiffness	82	97	1000 kg/cm ²
Work to Maximum Load	0.42	0.49	cm-kg/cm ³
Specific Gravity	0.4		
Weight	496	496	kg/m ³
Radial Shrinkage	3		%
Tangential Shrinkage	5		%

Comments on its properties: A very well known and heavily used general wood. It has medium properties and is easily machined. Its colour is very useful in marquetry where a typical red is needed.

- **Maple**

Appearance: Cream white with a reddish tinge. Selected timber is generally very light.



Botanical Name: Acer Saccharum

Common Uses: Agricultural implements, Bedroom suites, Billiard-cue butts, Boat building, Boxes and crates, Building materials, Cabinetmaking, Canoes, Casks, Chairs, Chests, Concealed parts (Furniture), Desks, Dining-room furniture, Dowell pins, Dowells, Drawer sides, Excelsior, Fine furniture, Floor lamps, **Flooring, Flooring: commercial heavy traffic, Flooring: industrial heavy traffic**, Furniture , Furniture components, Furniture squares or stock, Furniture, Handles: general, Hatracks, Instrument cases, Interior construction, Interior trim, Joinery, Kitchen cabinets, Lifeboats, Living-room suites, Millwork, Moldings, Musical instruments, Musical instruments: piano, Musical instruments: strings, Office furniture, Packing cases, Panelling, Plywood, Pulp/Paper products, Radio - stereo - TV cabinets, Railroad ties, Rustic furniture, Shade rollers, Shipbuilding, Sporting Goods, Stools, Tables , Tables, Textile equipment, Tool handles, Toys, Trimming, Turnery, Vehicle parts, Veneer, Veneer: decorative, Woodenware.

Data Table:

Item	Green	Dry	Metric
Bending Strength	751	1188	kg/cm ²
Crushing Strength	44	101	kg/cm ²
Density		721	kg/m ³
Hardness		616	kg
Impact Strength	98	101	cm
Maximum Crushing Strength	286	508	kg/cm ²
Shearing Strength		157	kg/cm ²
Stiffness	110	128	1000 kg/cm ²
Toughness		412	cm-kg
Work to Maximum Load	0.77	0.98	cm-kg/cm ³
Specific Gravity	0.49	0.55	
Weight	737	705	kg/m ³
Radial Shrinkage	3		%
Tangential Shrinkage	9		%

Comments on its properties: A very hard timber with high resistance to abrasion and wear. Often used in gymnasiums and aerobics/sports halls. Its whitish colour is very useful in marquetry were a really light colour is needed. Very well known and commonly used in North America and Europe.

- **Padauk**

Appearance: A vivid blood red, toning down to dark purple-brown with red streaks upon exposure. The grain is straight to interlocked with a moderately coarse texture.



Botanical Name: Pterocarpus Soyauxii

Common Uses: Agricultural implements, Bedroom suites, Boat building (general), Boat building: decking, Bobbins, Boxes and crates, Bridge construction, Cabinetmaking, Canoes, Carvings, Chairs, Chemical derivatives, Chests, Concealed parts (Furniture), Decks, Decorative veneer, Desks, Dining-room furniture, **Domestic flooring**, Dowell pins, Dowells, Drawer sides, Dyewood, Excelsior, Figured veneer, Fine furniture, Floor lamps, **Flooring**, Furniture, Furniture components, Furniture squares or stock, Furniture, Handles, Hatracks, Heavy construction, Joinery (external): ground contact, Joinery, Kitchen cabinets, Light construction, Living-room suites, Marine construction, Mine timbers, Musical instruments, Musical instruments: piano, Musical instruments: strings, Oars, Office furniture, Paddles,

Parquet flooring, Picker sticks, Plywood, Posts, Radio - stereo - TV cabinets, Railroad ties, Rustic furniture, Shade rollers, Shafts/Handles, Shuttles, Specialty items, Spindles, Sporting Goods, Tool handles, Turnery, Vats, Vehicle parts, Veneer, Veneer: decorative, Wheel spokes, Wheels.

Data Table:

Item	Green	Dry	Metric
Bending Strength	928	1263	kg/cm ²
Density		753	kg/m ³
Hardness		1006	kg
Maximum Crushing Strength	468	618	kg/cm ²
Shearing Strength		109	kg/cm ²
Stiffness	113	125	1000 kg/cm ²
Specific Gravity	0.6	0.68	
Weight	721	592	kg/m ³
Radial Shrinkage	3		%
Tangential Shrinkage	5		%

Comments on its properties: A very hard timber with high resistance to abrasion and wear. Very durable with outstanding stability. It polishes very well to give an excellent finish. Its reddish colour is very useful in marquetry were a really deep red colour is needed.

- **Purpleheart (Amarante)**

Appearance: The heartwood is initially dull brown, but it rapidly changes to a bright, vibrant purple. Prolonged exposure darkens the wood to a dark-purplish brown or dark brown, but the original colour can be restored by recutting the wood. Colour variation between boards is moderate to high. Presence of minerals in some boards may cause uneven coloration and steaming is reported to affect the colour. Peltogyne timbers are reported to vary widely in colour between, and probably within, species. The grain is straight to sometimes interlocked.



Botanical Name: Peltogyne Porphyrocardia

Common Uses: Billiard-cue butts, Boat building, Boat building: framing, Bridge construction, Cabinetmaking, Carvings, Construction, Decorative veneer, Dockwork, Fine furniture, **Flooring**, Furniture, Inlay work, Joinery, Light construction, **Marquetry**, Millwork, Panelling, **Parquet flooring**, Piling, Railroad ties, Shafts/Handles, Shipbuilding, Skis, Specialty items, Sporting Goods, Tool handles, Turnery, Vats, Veneer, Veneer: decorative, Wharf construction.

Data Table:

Item	Green	Dry	Metric
Bending Strength	1095	1560	kg/cm ²
Crushing Strength	105	163.	kg/cm ²
Density		1057	kg/m ³
Hardness		1102	kg
Maximum Crushing Strength	606	850	kg/cm ²
Shearing Strength		152	kg/cm ²
Static Bending	644	879	kg/cm ²
Stiffness	162	187	1000 kg/cm ²
Toughness		253	cm-kg
Work to Maximum Load	0.84	1.12	cm-kg/cm ³
Specific Gravity	0.63	0.69	
Weight	1073	945	kg/m ³
Radial Shrinkage	3		%
Tangential Shrinkage	6		%

Comments on its properties: General finishing qualities are rated as good. Treatment against the effects of ultra-violet rays has been suggested to maintain the original colour of the wood. A very hard and durable timber. Its purple colour is very useful in marquetry were something really different and eye-catching is required.

- **Wenge**

Appearance: The heartwood is dark brown, almost black. On the quartersawn surface, fine pencil-thin, light tan lines interspersed with blackish brown stripes make the surface appear as if it has been stroked by fine claws. On the tangential surface, the light lines show up as undulating streaks, like waves on the water. Orientation of the grain is an important consideration to show the wood at its best. Wenge is straight grained, and very coarse textured.



Botanical Name: Millettia Laurentii

Common Uses: Bedroom suites, Boat building (general), Boat building, Boxes and crates, Brush backs & handles, Building construction, Building materials, Cabin construction, Cabinetmaking, Canoes, Carvings, Chairs, Chests, Concealed parts (Furniture), Construction, Desks, Dining-room furniture, **Domestic flooring**, Dowell pins, Dowells, Drawer sides, Drum sticks, Excelsior, Factory construction, **Factory flooring**, Fine furniture, Floor lamps, **Flooring**, Furniture , Furniture components, Furniture squares or stock, Furniture, Hatracks, Heavy construction, Joinery, Kitchen cabinets, Lifeboats, Light construction, Living-room suites, Mine timbers, Musical instruments , Office furniture, Organ pipes, Panelling, **Parquet flooring**, Piano keys, Pianos , Plywood, Posts, Railroad ties, Shipbuilding, Sporting Goods, Tool handles, Turnery, Vehicle parts, Veneer: decorative.

Data Table:

Item	Green	Dry	Metric
Bending Strength	1032	1548	kg/cm ²
Density		865	kg/m ³
Hardness		1013	kg
Maximum Crushing Strength	517	774	kg/cm ²
Shearing Strength		199	kg/cm ²
Stiffness	145	167	1000 kg/cm ²
Specific Gravity	0.65	0.83	
Weight	913	881	kg/m ³
Radial Shrinkage	3		%

Comments on its properties: General finishing qualities are rated as good. A very hard and durable timber. Its dark brown/black colour is very useful in marquetry where a really dark colour is required. Wenge is a good choice for flooring strips and blocks and for interior and exterior joinery and general construction work. It is a good wood for turning and is sliced for panelling and veneers for furniture and cabinets. As with most exotic woods, it is selected for its colour and dramatic appearance in any project that seems appropriate.

- **White Oak**

Appearance: Has a light to medium brown colour, though there can be a fair amount of variation in colour. It can be described as a biscuit or tan colour. It has medium-to-large pores and a fairly coarse grain.



Botanical Name: Quercus Alba

Common Uses: Building materials, Cabinetmaking, Ceiling, Crossties, Decorative veneer, **Domestic flooring**, Exterior trim & siding, Exterior uses, **Factory flooring**, Figured veneer, **Flooring**, Furniture components, Furniture squares or stock, Interior construction, Interior trim, Light construction, Millwork, Mouldings, Office furniture, Panelling , **Parquet flooring**, Railroad ties, Shakes, Sheathing, Shingles, Siding, Stair rails, Stairworks.

Data Table:

Item	Green	Dry	Metric
Bending Strength	571	1016	kg/cm ²
Crushing Strength	46	73	kg/cm ²
Hardness		604	kg
Impact Strength	104	91	cm
Maximum Crushing Strength	245	512	kg/cm ²
Shearing Strength		137	kg/cm ²
Static Bending	254	330	kg/cm ²
Stiffness	86	122	1000 kg/cm ²
Work to Maximum Load	0.77	1.05	cm-kg/cm ³
Specific Gravity	0.59	0.67	
Weight	961	721	kg/m ³
Radial Shrinkage	5		%
Tangential Shrinkage	10		%

Comments on its properties: White Oak, along with its brother Red Oak, are commonly used domestic lumber species. Hard, durable, and moderately priced, White Oak presents an exceptional value to woodworkers—which explains why it is so widely used in cabinet and furniture making. Very widely used in flooring across the world. It's probably the most widely used type of wood for flooring. Its biscuit colour makes it very useful as a medium colour for flooring and marquetry.

- **Zebrano**

Appearance: Heartwood is a light brown or cream colour with dark blackish brown streaks vaguely resembling a zebra's stripes. Depending on whether the wood is flatsawn or quartersawn the stripes can be either chaotic and wavy (flatsawn), or somewhat uniform (quartersawn). It has a fairly coarse texture and open pores. Its grain is usually wavy or interlocked.



Botanical Name: *Microberlinia Brazzavillensis*

Common Uses: Boat building (general), Boat building, Cabinetmaking, Canoes, Chairs, Chests, Concealed parts (Furniture), Decorative plywood, Decorative veneer, Desks, Dining-room furniture, Dowell pins, Dowells, Drawer sides, Figured veneer, Fine furniture, Floor lamps, **Flooring**, Furniture , Furniture components, Furniture squares or stock, Furniture,

Handles: general, Hatracks, Heavy construction, Joinery, Kitchen cabinets, Ladders, Lifeboats, Light construction, Living-room suites, Mine timbers, Office furniture, Panelling, Plywood, Pulp/Paper products, Radio - stereo - TV cabinets, Railroad ties, Rustic furniture, Shipbuilding, Skis, Sporting Goods, Stools, Tables , Tool handles, Toys, Turnery, Utility furniture, Vehicle parts, Veneer, Veneer: decorative, Wardrobes.

Data Table:

Item	Green	Dry	Metric
Bending Strength	794	1208	kg/cm ²
Density		801	kg/m ³
Hardness		951	kg
Maximum Crushing Strength	384	603	kg/cm ²
Shearing Strength		181	kg/cm ²
Stiffness	132	152	1000 kg/cm ²
Specific Gravity	0.64	0.66	
Weight	737	592	kg/m ³
Radial Shrinkage	5		%
Tangential Shrinkage	10		%

Comments on its properties: Its striped pattern is very useful in marquetry were something really exquisite is required. It is great for modern concepts. Zebrano is strong and stiff, with a fairly high density. Zebrano is a moderately durable wood. Stability is below average for a tropical exotic wood. Zebrano is frequently quartersawn and used as veneer. Other uses include: tool handles, furniture, boatbuilding, and skis.