

## FORZA DOORS

### TIMBER DENSITY CHART

The characteristics and uses of a broad range of species seen in the UK are contained in this Wood Information sheet. The characteristics shown in the following tables are described below.

**Species** The standard names recommended in BS 7359 Nomenclature of commercial timbers including sources of supply are given in bold in the tables. The botanical names are included to avoid confusion between different timbers which may have similar common names. The main regions of origin are indicated for each timber.

**Colour(s)** Related to the heart of the species. Most timbers vary in colour and will change with use, the application of finishes and exposure to light. Unprotected timber exposed to the weather will discolour and may develop and may develop mould growth.

**Density** Varies depending on species and moisture content. Averages at 15% moisture content are quoted; 0.5% of the given weight can be added for every 1% increase in moisture content. **(\*Indicates that density can vary by 20% or more.)**

**Texture** Surface texture is classified as fine, medium or coarse.

**Availability** Described in broad terms as regular, limited or variable. It will vary both from time to time and throughout the country. Some species may not be available as raw material (or only in time quantities) but may be seen as veneer on furniture or panelling. Other species have been included because of their historical or technical interest or importance.

Trading in some species is governed by CITES - the Convention in International Trade in Endangered Species which lists species in three categories:

Appendix I - Trading prohibited

Appendix II - Trading permitted subject to export permits from the country of origin (and re-export permits as appropriate) and UK import permits from Department for Environment, Food and Rural Affairs.

Appendix III - Species protected within individual party states.

Note that CITES listing covers the raw material only, not manufactured products.

CITES is implemented within the European Union by EC Regulations; the species listing is broadly equivalent to CITES listing. In the UK this legislation is backed by the Control of Trade in 1997. Further information is available from [www.ukcites.gov.uk](http://www.ukcites.gov.uk).

**Price** Price is difficult to quantify since timber is affected by currency variations. However, to give a general indication of comparative prices, the following terms are used:

High	Over £1,000 per cubic metre
Medium	£550 - £999 per cubic meter
Low	Up to £550 per cubic metre

(1999 prices) The prices relate to decorative hardwoods: structural softwoods will normally fall into the cheaper half of the low category. Prices are for kiln dried stock where appropriate.

Colour	Species/ Origin	Timber Type/ Colour	Density kg/m <sup>3</sup>	Texture	Availability/ Price
	Abura W Africa	Hardwood Light brown	580*	Medium/ Fine	Limited Low
	Afrormosia W Africa	Hardwood Light brown	710	Medium/ Fine	CITES II
	Afzelia (doussié) W Africa	Hardwood Reddish-brown	830*	Medium/ Course	Limited Medium
	Agba W Africa	Hardwood Yellowish-brown	510	Medium	Limited Medium
	Andiroba S America	Hardwood Pink to red-brown	640	Medium/ Course	Limited Medium
	Ash, American USA	Hardwood Grey, brown	670*	Course	Regular Medium
	Ash, European Europe	Hardwood White to light brown	710*	Medium/ Course	Regular Medium
	Aspen (American, Canadian) Canada, USA	Hardwood Grey, white to pale brown	450	Fine	Variable Low
	Balsa S America	Hardwood White	160*	Fine	Limited Medium
	Basswood N America	Hardwood Creamy white to pale brown	420	Fine	Limited Medium
	Beech, European Europe	Hardwood Whitish to pale brown, pinkish- red if steamed	720	Fine	Regular Low/Medium
	Birch, American North America	Hardwood Light to dark reddish brown	640/ 710	Fine	Regular Low
	Birch, European Europe	Hardwood White to light brown	670	Fine	Limited Low
	Cedar (of Lebanon) Europe	Softwood Light brown	580	Medium	Limited Low
	"Cedar, Central/S American"	Hardwood	480	Coarse	Limited

Central & S America Pinkish-brown to dark reddish-brown Medium

Colour	Species/ Origin	Timber Type/ Colour	Density kg/m <sup>3</sup>	Texture	Availability/ Price
	Cherry, American USA	Hardwood Reddish-brown to red	580	Fine	Limited Medium
	Cherry, European Europe	Hardwood Pinkish-brown	630	Fine	Limited Medium/High
	Chestnut, sweet Europe	Hardwood Yellowish-brown	560	Medium	Limited Medium
	Danta W Africa	Hardwood Reddish-brown	750	Fine	Limited Low
	"Douglas fir" N America & UK	Softwood Light reddish-brown	530	Medium	Regular Medium
	Ebony W Africa, India, Sri Lanka	Hardwood Black, some grey/ black stripes	1030/ 1190	Fine	Limited High
	Elm, European Europe	Hardwood Light brown	560*	Coarse	Limited Medium
	Elm, White N America	Hardwood Pale Reddish-brown	580	Coarse	Limited Medium
	Gaboon W Africa	Hardwood Pinkish brown	430	Medium	Limited Medium
	Gedu nohor/edinam W Africa	Hardwood Reddish brown	560	Medium	Limited Low/Medium
	Geronggang S E Asia	Hardwood Pink to red	540	Coarse	Variable Low
	Guarea W Africa	Hardwood Pinkish brown	590	Medium	Variable Low/Medium
	Idigbo W Africa	Hardwood Yellow	560*	Medium	Variable Medium
	Iroko W Africa	Hardwood Yellow-brown	660	Medium	Regular Low/Medium

	Kapur S E Asia	Hardwood Reddish-brown	770*	Medium	Variable Medium
	Limba/Afara W Africa	Hardwood Pale yellow, brown/straw	560*	Medium	Limited Low/medium
	Mahogany, Africa W Africa	Hardwood Reddish-brown	530*	Medium	Regular Low/Medium
<b>Colour</b>	<b>Species/ Origin</b>	<b>Timber Type/ Colour</b>	<b>Density kg/m<sup>3</sup></b>	<b>Texture</b>	<b>Availability/ Price</b>
	Mahogany, American Central & S America	Hardwood Reddish-brown	560*	Medium	CITES III Regular High
	Makoré W Africa	Hardwood Pinkish-brown to dark red	640	Fine	Variable Medium
	Maple, rock N America	Hardwood Creamy white	740	Fine	Regular Medium
	Maple, soft N America	Hardwood Creamy white	550*	Fine	Limited Medium
	Mengkulang S E Asia	Hardwood Red, brown	720	Coarse	Limited Medium
	Meranti, dark red/dark red seraya/red lauan S E Asia	Hardwood Medium to dark red- brown	710*	Medium	Regular Low/Medium
	Meranti, light red/light red seraya/white lauan S E Asia	Hardwood Pale pink to mid red	550*	Medium	Regular Low
	Meranti, yellow/ yellow seraya S E Asia	Hardwood Yellow-brown	660*	Medium	Limited Low/Medium
	Niangon W Africa	Hardwood Reddish-brown	640*	Medium	Variable Low
	Nyatoh W Africa	Hardwood Pale pink to red-brown	720*	Fine	Variable Low
	Oak, American red	Hardwood	790	Medium	Regular

	N America	Yellowish-brown with red tinge			Medium
	Oak, American white	Hardwood	770	Medium	Regular
	N America	Pale yellow to mid-brown			Medium
	Oak, European	Hardwood	720*	Medium/Coarse	Variable
	Europe	Yellowish-brown			Medium/High
	Oak, Japanese	Hardwood	670	Medium	Very limited
	Japan	Pale yellow			High
<b>Colour</b>	<b>Species/ Origin</b>	<b>Timber Type/ Colour</b>	<b>Density kg/m<sup>3</sup></b>	<b>Texture</b>	<b>Availability/ Price</b>
	"Oak, Tasmanian"	Hardwood	610/ 710*	Coarse	Limited
	Australia & Tasmania	Pale pink to brown			Medium
	Obeche/Wawa	Hardwood	390	Medium	Regular
	W Africa	White to pale yellow			Low/Medium
	Padauk	Hardwood	740*/ 850	Coarse	Limited
	W Africa, Andamans, Myanmar	Red to dark purple-brown			High
	Parana pine	Softwood	550	Fine	Regular
	S America	Golden brown with bright red streaks			Low/Medium
	Redwood, European	Softwood	510	Medium	Regular
	Scandinavia, Russia	Pale yellowish-brown to red brown			Low
	Rosewood	Hardwood	870*	Medium	D nigra
	S America, India	Medium to dark purplish-brown with black streaks			CITES I
	Sapele	Hardwood	640	Medium	Regular
	W Africa	Medium reddish-brown with marked stripe figure			Medium
	Sepetir	Hardwood	680	Medium	Limited
	S E Asia	Golden brown			Low
	Sesendok	Hardwood	480	Medium to coarse	Limited
	S E Asia	Pale cream to straw yellow			Low/Medium
	Sycamore	Hardwood	630	Fine	Limited

Europe	White or yellowish-white			Medium
Taun	Hardwood	720	Coarse	Limited
S E Asia	Pale pinkish-brown			Low
Teak	Hardwood			Regular
Burma, Thailand and plantations elsewhere	Golden brown, Sometimes with dark markings	660	Medium	High
Tulipwood/ Poplar, American yellow	Hardwood			Limited Medium
N American	Yellowish to olive brown with dark stains	510	Fine	

Colour	Species/ Origin	Timber Type/ Colour	Density kg/m <sup>3</sup>	Texture	Availability/ Price
Utile	W Africa	Hardwood Reddish-brown	660	Medium	Regular Medium
"Walnut, Africa"	W Africa	Hardwood Yellowish-brown, sometimes with dark streaks	560	Medium	Variable Medium
Walnut, American	N America	Hardwood Rich dark brown	660	Coarse	Variable Medium/High
Walnut, European	Europe	Hardwood Grey-brown with dark streaks	670	Coarse	Limited High
Wengé/ Panga panga	Central & E Africa	Harwood Dark brown with fine black veining	880*	Coarse	Limited Medium
Yew	Europe	Softwood Orange-brown to purple-brown	670	Medium	Very Limited High

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Afrormosia	W Africa	Hardwood Light brown	710	Medium/ Fine	CITES II
Afzelia (doussié)	W Africa	Hardwood Reddish-brown	830*	Medium/ Course	Limited Medium
Agba	W Africa	Hardwood Yellowish-brown	510	Medium	Limited Medium

Andiroba S America	Hardwood Pink to red-brown	640	Medium/ Course	Limited Medium
Ash, American USA	Hardwood Grey, brown	670*	Course	Regular Medium
Ash, European Europe	Hardwood White to light brown	710*	Medium/ Course	Regular Medium
Aspen (American, Canadian) Canada, USA	Hardwood Grey, white to pale brown	450	Fine	Variable Low
Balsa S America	Hardwood White	160*	Fine	Limited Medium
Basswood N America	Hardwood Creamy white to pale brown	420	Fine	Limited Medium
Beech, European Europe	Hardwood Whitish to pale brown, pinkish-red if steamed	720	Fine	Regular Low/Medium
Birch, American North America	Hardwood Light to dark reddish brown	640/ 710	Fine	Regular Low
Birch, European Europe	Hardwood White to light brown	670	Fine	Limited Low
Cedar (of Lebanon) Europe	Softwood Light brown	580	Medium	Limited Low
"Cedar, Central/S American" Central & S America	Hardwood Pinkish-brown to dark reddish-brown	480	Coarse	Limited Medium