



## Ash

*Fraxinus americana* L. Syn. - *F. biltmoreana* Beadle = *F. alba* Marsch (1) *Fraxinus pennsylvanica* Marsh (2) *Fraxinus oregona* Nutt.

### Commercial names:

|          |   |
|----------|---|
| English: | American ash, Canadian ash, American white ash ( <i>F. americana</i> ), American ash ( <i>F. pennsylvanica</i> ), Oregon ash ( <i>F. oregona</i> ). |
| Spanish: | Fresno americano, Fresno de Carolina ( <i>F. americana</i> ), Fresno rojo americano ( <i>F. pennsylvanica</i> ).                                    |
| French:  | Frêne blanc d'Amérique ( <i>F. americana</i> ), Frêne rouge d'Amérique ( <i>F. pennsylvanica</i> ).   |
| Italian: | Frassino bianco americano ( <i>F. americana</i> ), Frassino rosso americano ( <i>F. pennsylvanica</i> ).  |
| German:  | Amerikanische Weissesche ( <i>F. americana</i> ), Amerikanische Rotesche ( <i>F. pennsylvanica</i> ).   |

### Common names:

|         |   |
|---------|---|
| U.S.A.: | White ash ( <i>F. americana</i> ), Green ash, Red ash ( <i>F. pennsylvanica</i> ).    |
| Canada: | Canadian ash ( <i>F. americana</i> ), Green ash, Red ash ( <i>F. pennsylvanica</i> ). |

### Physical properties:

|                   |   |
|-------------------|---|
| Density:          | 560-660 kg/m <sup>3</sup>                   |
| Shrinkage:        | Stable                                      |
| Shrinkage values: | Total Unitary                               |
| Volumetric:       | 13% <sup>(1)</sup> -11% <sup>(2)</sup> (-)  |
| Tangential:       | 8% <sup>(1)</sup> -5% <sup>(2)</sup> (0.32) |
| Radial:           | 5% <sup>(1)</sup> -4% <sup>(2)</sup> (0.15) |
| Hardness:         | Semi-hard                                   |

### Mechanical properties (Wood free of defects)

|                                     |  |
|-------------------------------------|--|
| Static bending:                     | 103 <sup>(1)</sup> - 77 <sup>(2)</sup> N/mm <sup>2</sup>       |
| Modulus of elasticity:              | 11,850 <sup>(1)</sup> - 8,370 <sup>(2)</sup> N/mm <sup>2</sup> |
| Compression parallel to grain:      | -  |
| Compression perpendicular to grain: | -  |
| Perpendicular:                      | 5.3 <sup>(1)</sup> - 4.4 <sup>(2)</sup> N/mm <sup>2</sup>      |
| Shear:                              | 13.1 <sup>(1)(2)</sup> N/mm <sup>2</sup>                       |
| Toughness:                          | -  |

### Origin and availability:

This tree is found in the northeastern United States and in southeastern Canada. The forested area is important. Wood production and export are stable.

### Wood description:

The color of the sapwood is white, and the heartwood is light brown, greyish brown or pale yellow with brown streaks. The heartwood can also be cream-colored or a very light brown and can occasionally have brown streaks. The wood is straight-grained and the texture of the grain is coarse (open).

### Drying:

This wood dries easily. Stickers can produce brown-grey discoloration in the sapwood. Occasionally superficial checks are produced. These defects usually appear in trees that come from wet areas and whose wood has dried very slowly. The recommended drying schedules are T8-B4 (4/4) and T5-B3 (8/4) from the FPLM.

### Natural durability and ease of penetration:

Information is not available about the durability of this wood against degrading agents. Generally speaking the wood is classified as not durable. The heartwood is moderately penetrable and the sapwood is penetrable.

### Technological properties:

This wood is easy to saw and it dulls saws at a moderate rate. It is suitable for rotary-cut veneer and sliced veneer. The wood is difficult to plane, chisel and turn, although other sources say that machining is excellent and presents no problems. Dulling of machining tools is moderate. Gluing and finishing properties are good. Holes must be bored prior to nailing or screwing.

### Applications:

Sports goods./ Curved parts of ships and boats./ Plywood./ Decorative veneers./ Fine cabinetwork.