



American White Ash – *Fraxinus americana*

OTHER NAMES: White Ash, American Ash

REGION OF ORIGIN: United States

GENERAL DESCRIPTION

American White Ash heartwood is a grey-brown, sometimes tinged with red. Demand is for the lighter coloured white sapwood. Generally straight grained with a coarse but even texture. Ash is a non-durable timber prized for its use in sports equipment and tool handles. US forests have a long-standing tradition of sustainable forest management, bolstered by a strong legal framework for environmental conservation.

MAIN USES

Furniture, cabinetmaking, interior joinery, sporting equipment, tool handles, food and liquid containers.

WORKING PROPERTIES

There is moderate blunting effect on tools, but can be worked satisfactorily with both hand and machine tools. It glues, stains and polishes well. Has excellent bending properties.

MECHANICAL PROPERTIES

Wood bending properties are variable but generally very good. The wood has good strength elasticity, toughness, stiffness and hardness qualities allied to its relatively light weight. Excellent shock resistance.

AVAILABILITY

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

GRADING

Prime (FAS).

| | |
|--------------------------|-------------|
| DENSITY (kg/m3)*: | 660 |
| DURABILITY: | Non-durable |

| | |
|------------------------|-----|
| STRENGTH GROUP: | SD5 |
| MOR (MPa): | 103 |
| MOE(GPa): | 12 |
| JANKA(kN): | 5.9 |

| | | |
|------------------------------------|-------------------|---------------|
| SHRINKAGE GREEN TO 12% M.C. | Tangential | Radial |
| | 7.8 | 4.9 |

*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 |