

AMERICAN BLACK WALNUT – DATA SHEET

Product

American Black Walnut (*Juglans nigra*) wood for architectural applications.

Contact Information

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Description

American Black Walnut (*Juglans nigra*) aka Black Walnut and Walnut, is a durable hardwood timber of medium density, with a Janka hardness value of 1010, moderate bending, low stiffness, and good dimensional stability. It is native to the United States, with its principal commercial region in the Central States. Its good working characteristics coupled with its rich brown coloration puts the wood in a class by itself among temperate-zone hardwoods. The wood is tight-grained and polishes to a very smooth finish. Prized worldwide for its deep rich color, additional staining and oiling will deepen the richness and natural characteristics of the wood.

The sapwood of American Black Walnut is creamy white while the heartwood is light to dark chocolate brown, occasionally with a purplish cast and darker streaks. The majority of the commercially produced American Black Walnut lumber is steam treated to darken the sapwood in order to reduce the contrast. The wood is generally flat-grained but can contain a curly grain that produces a decorative figure.

Uses

American Black Walnut can be used in all architectural woodwork applications, including casework, millwork, paneling, standing and running trim, doors, floors, and furniture. Most applications are available in a variety of thicknesses, widths, and grain patterns including finished styles of clear and character. Both flat grain and rift and quartered grains are typically available. See Availability and Cost for more specifics.

Availability and Cost

American Black Walnut is available in both solid sawn lumber and veneer. Standard and custom architectural moldings and trim profiles are available through millwork and trim manufacturers and distributors. Standard and custom flooring profiles are available through flooring manufacturers and distributors. For custom manufacturing, utilizing furniture and flooring grade material, reference the Walnut grading rules of the National Hardwood Lumber Association (NHLA). The NHLA's "Rules for the Measurement & Inspection of Hardwood & Cypress" may be obtained from NHLA at www.nhla.com.

Following is an overview of the grading rules for American Black Walnut. The grades are developed to maximize the usable wood produced from the logs. The typical commercially available grades are FAS-F1F, No. 1 - Common, and No. 2 - Common.

Because of the uniqueness of the timber, the grading rules for Walnut differ from the majority of the other more abundant North American hardwood species.

The grade of FAS-F1F will have the highest percentage of clear areas in the pieces, 83 percent or more defect-free area. The minimum size clear areas used for calculating this grade are 4 inches wide x 3 feet long, or 3 inches wide x 6 feet long. FAS-F1F is typically used for table tops, moldings, wide plank flooring, and other uses that require larger areas of clear wood. This grade will typically have wider average widths than the other grades. Rift and quartered (straight grained) material is usually available in this grade but will have a narrower average width than the flat grained material.

The grade of No. 1 - Common will have a clear area percentage of at least 66 percent defect-free wood in each piece. The minimum size clear areas used for calculating this grade are 4 inches wide x 2 feet long, or 3 inches x wide x 3 feet long. This grade is typically used for cabinets, chairs, and other medium size furniture parts.

The grade of No. 2 - Common will have a clear area of at least 50 percent defect-free wood in each piece. The minimum size clear areas used for calculating this grade is 2 inches wide, containing at least 72 square inches. This grade is typically used for strip flooring, trophies and plaques, and small furniture parts.

Other proprietary grades are available from individual AWMA producer members. Check with individual AWMA product members for specifics.

Unlike softwoods, the hardwood grading standards are not written for the purposes of utilizing the entire board. The rules are designed for utilization of only the clear portions of each board. All pieces in every grade are measured by an inspector for a required minimum amount of clear wood, in a minimum size clear area. The typical millwork or furniture processor will crosscut and rip the board to eliminate undesirable defects. For certain applications, these clear pieces are jointed together to produce wider and longer clear panels.

The unit of measure for sales and purchasing of hardwood lumber is a board foot. Most grades of lumber are commercially produced in standard rough thicknesses including 4/4 (1 inch), 5/4 (1-1/4 inches), 6/4 (1-1/2 inches), 8/4 (2 inches), 10/4 (2-1/2 inches), 12/4 (3 inches), 16/4 (4 inches) and 20/4 (5 inches). This lumber is typically kiln dried to an average moisture content of 8 percent so it can be utilized in all climate-controlled environments. Many producers also offer surfacing and ripping services for their lumber.

The minimum size board for FAS-F1F is 5 inches wide x 6 feet long. The minimum size board for No. 1 - Common and No. 2 - Common is 3 inches wide x 4 feet long. The standard lumber lengths are in 1-foot increments from 4 to 16 feet with the majority of the lengths produced being between 6 and 12 feet. There are no standard width sizes for hardwood grade lumber, rather each piece is produced as wide as the timber allows and is sold as a random width product. Typical grade lumber bundles will have a variety of widths which will be measured and sold by the inch in width x the length of each piece. Specific width and length specifications are available from some suppliers.

Steam treated sapwood is allowed without limit in all grades. Color sorts are also available from suppliers.

The specific availability and cost will vary in terms of grades, thickness, widths, lengths, and appearance characteristics required. Contact a producer member of the AWMA for more information as to the suitability of American Black Walnut for your specific project. A full list of member producers is available on the AWMA website at www.walnutassociation.org.

Sustainability

The American Walnut Manufacturers Association encourages sustainable harvesting practices to ensure full utilization of timber resources without compromising forest health. Our members are encouraged to comply with Positive Environmental Practices which include the following environmental impact principles:

- We support sustained yield, multiple-use forest management on all Federal, State, and privately owned woodlands, and we support policies that encourage both public and private investment in long-term sustainable forest management.
- We support efforts to ensure implementation of sound management practices on all tropical and temperate forests, and when given the opportunity refer landowner questions about timber management to the proper forestry agencies or authorities.
- We support the positive attributes of proper utilization which result in no net loss of our forest lands, full utilization of sustainable timber resources, long-term jobs for communities, and a good environment for all plants and animals, including mankind.
- We recognize Walnut (*Juglans Nigra*) to be a unique species. Unique in the manner in which it is grown, and unique in respect from consumers and manufactures alike. Walnut is a sun-loving species that thrives in open-grown sites. Walnut represents less than 5 percent of the natural hardwood forest. Walnut is planted extensively in the Eastern United States.

Fabrication and Installation

American Black Walnut is easily fabricated into finished architectural products using standard hand or power woodworking tools and techniques.

As with all architectural woodwork products, installation should be performed by experienced carpenters under the supervision of a qualified foreman.

Specifying

American Black Walnut can be specified using any commercial or office master specification system by simply inserting the required attributes, including size, grade, and appearance characteristics. AWMA offers guidance to specifiers in their publication "Specifying American Black Walnut in Architectural Applications".

The Architectural Woodwork Institute (AWI) publishes Architectural Woodwork Standards, which contain recommendations for Submittals, Care and Storage, Materials, and Finish Carpentry/Installation. These four publications can be used by design professionals to properly specify architectural woodwork, including American Black Walnut. Copies are available from AWI at www.awinet.org.