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Assessment of black walnut wood quality

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Visually attractive black walnut wood table

Black walnut (*Juglans nigra* L.) wood is classified as a deciduous, circularly porous tree species. The heartwood and sapwood are easily distinguishable. The sapwood is narrow, gray-white in color, the heartwood is gray violet to gray black in color. In woodworking, black walnut wood is sought after and popular for its beautiful color, high strength and durability. It does not warp when dried, is easy to work with and resists weather conditions. The wood is used to make gun stocks, but also in the furniture industry, for furniture, parquet, veneer, cladding, railings and staircases. It is also used to make artistic, turned objects. It has been experimentally proven that its density (571.8 kg.m3) is higher than that of the common walnut or sycamore maple. The plum or pear are wood species with a higher density. The modulus of elasticity is higher (11.07 GPa) than in the compared tree species – plum and pear. The speed of sound propagation is comparable to that of chestnut, cherry or sycamore maple, but the value is higher compared to other tree species. Black walnut can be classified as a tree species suitable for the production of special wood products, it is suitable for products that require higher requirements for mechanical properties. It can significantly increases its potential in the production of musical instruments, weapon stocks and sports equipment. Products made from black walnut can be considered very luxurious in their visual appearance.

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Funded by the European Union

This project has received funding from the European Union's Horizon Europe research and innovation programme under grant agreement No GA 101086563. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.