

Western Hemlock



Western Hemlock is one of the most abundant tree species along British Columbia's (B.C.) coast, thriving on both sides of the Coast Range and in the interior wet belt west of the Rocky Mountains. A large tree that reaches 30 to 50 meters (98 to 164 feet) in height, it typically lives around 500 years. The wood is known for its strength, stiffness, and fine working qualities, making it a preferred choice for various applications. Its dense, non-resinous characteristics give Western Hemlock unmatched versatility.

Common Uses

Furniture & Cabinetry: Valued for its uniform texture and workability, Western Hemlock is widely used in mouldings, interior paneling, furniture, and doors.

Structural Applications: With its excellent strength-to-weight ratio, Western Hemlock is commonly used for general construction, roof decking, plywood and even mass timber.

Flooring, Trim & Joinery: Its even density and ease of machining make Western Hemlock a strong candidate for trim, joinery, and flooring applications.

Pulp & Paper: Western Hemlock is sometimes a source of fiber for the pulp and paper industry, contributing to newsprint and other paper products.



Physical Properties

STIFFNESS/ MOE (MPa)	Air Dry	12300
STRENGTH/MOR (MPa)	Air Dry	81
DENSITY (kg/m³)	Air Dry	429
COMPRESSION PARALLEL (MPa)	Air Dry	46.7
SHEAR (MPa)	Air Dry	6.48
SHRINKAGE (air dried - 12%)	Tangential / Radial ratio	1.6



Working Properties

Workability: Western Hemlock is relatively easy to work with, allowing for clean cuts, precise shaping, and smooth machining. It turns, planes, and glues effectively, yielding a high-quality finished product.

Finishing: The wood is non-resinous and readily accepts stains, paints, and can be polished beautifully. It holds nails and screws well and sands smoothly, making it ideal for fine finishing.

Durability: While Western Hemlock requires careful drying to prevent defects, it offers good strength and stability. Its versatility makes it a reliable choice for structural, interior, and industrial applications.

	PROCESS	PERFORMANCE	COMMENTS
MACHINING	Planing	Good to average	Silky smooth finish easy to achieve.
	Shaping	Average	Easy, with good surface quality.
	Sanding	Good	Good sanding finish.
FASTENING	Screwing	Good	
	Nail Retention	Good	
	Gluings	Average	
FINISHING	Staining	Good	Best finish is with light stain or clear finish followed by nitrocellulose alkyd clear sealer and finish.
	Painting	Good	
DRYING	Ease of Drying	Fair	Due to the high moisture content of this wood, longer kiln drying times are required. When dried at high temperatures the exterior 2-3mm can turn a brownish colour.
DURABILITY	Natural Decay Resistance	Poor	Not suitable for prolonged outdoor exposure.
	Treatability	Good	Can be improved by incising.



For more information on the availability of Western Hemlock, please contact info@canadianwoodbc.com



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