



UNDERSTANDING BRITISH COLUMBIA WOOD SPECIES GRADES AND SIZES



Lumber made from British Columbia (B.C.) wood species is produced for either the structural or appearance market. In the appearance market, the durability, grain, colour and amount of clear lumber is important. For the structural market, lumber grades are applied to each piece of lumber produced so that the buyer knows that he is getting a product consistently graded to a standard.

Grades take into account the size and location of defects, as well as the suitability of the piece of lumber for the end use for which it is intended.

The National Lumber Grades Authority (www.nlga.org) is the guiding body for structural grades in North America. A number of organisations are authorised to certify that Canadian lumber matches the NLGA standards. The intent of the grading system is to provide lumber users with assurance that products meet a set criteria and performance standards.

Lumber that is used for appearance purposes or for remanufacture to other product such

as doors or furniture can also be sold without a grade stamp. In those cases, the mill or producer is responsible to the customer for the product quality. Where a dispute is involved, an independent grading agency can be called upon to arbitrate. In any event, the customer can be assured that the quality of the product is guaranteed and the product will meet the standard specified in the contract.

Structural lumber is dried to an average moisture content of 19%, and comes in highly standardized sizes. Lumber that is intended for non-structural uses such as doors, furniture, millwork, etc. may be dried to lower moisture contents (around 10%) or left unseasoned depending on the customer's requirements.

The coastal forests of B.C. where **western hemlock, Douglas fir, western red cedar and yellow cedar** are grown offer more opportunities for a wider variety of lumber sizes, final moisture content and surface quality finishes. In addition, the lumber produced from this coastal region has a wider variety of grades, including both structural and appearance grades.

SPECIES AND SIZES

SPECIES	GRADE CLASSIFICATION	COMMON SIZES	
		ACTUAL SIZE (in)	ACTUAL SIZE (mm)
DOUGLAS FIR	Structural	1.875 inches thick x 3.875, 5.875, 7.875 and 9.875 inches wide	47mm thick x 98, 150, 200 & 250 mm wide allowing natural shrinkage after drying
	Shop and Clears	2 inches x 4568	50mm thick x 101, 127, 152 & 203mm wide allowing natural shrinkage after drying
WESTERN HEMLOCK	Structural (KD)	1.5 inches thick x 2.5, 3.5, 5.5, 7.5, 9.5 inches wide	38mm thick by 64, 89, 140, 184 & 235mm wide
	Shop and Clears	2 inches x 4 & 6 3.75 inches x 3.75 inches	50mm thick x 101 & 152mm wide 95mm x 95mm allowing natural shrinkage after drying
WESTERN RED CEDAR	Structural	1.75 inches thick x 4, 6.8 4x4w 6x6w	44mm thick x 101, 152 & 200mm wide allowing natural shrinkage after drying
	Shop and Clears	4x4 6x6 1.75x4, 5, 6, 8, 10 4x4w 6x6w	100x100mm 150x150mm 44mm thick x 100, 125, 150, 200, 250 100mm x 100mm wider 150mm x 150mm wider allowing natural shrinkage after drying
YELLOW CEDAR	Structural	2 inches thick by 4, 6, 8 4x4 6x6	50mm thick x 100, 150, 200mm wide 100mm x 100mm 150mm x 150mm allowing natural shrinkage after drying
	Shop & Clears	2 inches thick x 4, 5, 6, 8	50mm thick x 100, 125, 150, 200mm allowing natural shrinkage after drying
SPF	Structural (KD)	1.5 inches thick x 2.5, 3.5, 5.5, 7.5, 9.5 inches wide	38mm thick x 64, 89, 140, 184 & 235 mm wide

BRITISH COLUMBIA GRADING OVERVIEW

GRADE CLASSIFICATIONS	GRADING CRITERIA	GRADING RULES	GRADE CATEGORIES
APPEARANCE	High percentage of clear defect-free surface area	NLGA Industrial Clears	B & Better, C clear, D clear (planed and dried to 10-12%)
		R-List	R-List Clears: #2 clear, #3 clear, #4 clear Normally dried to 10-12%
SHOP/FACTORY	A percentage of clear surface area after defects are removed by cutting	NLGA	Select Shop, #1 shop, #2 shop, #3 shop and Door stock, window stock and moulding stock (all dried to 10-12%)
STRUCTURAL	Strength and specific end use requirements	NLGA	No. 1, No. 2, No. 3, Economy J-grade and Machine Stress Rated (MSR) Boards 1.5 inch thick: #2 common, #3 common and #4 common (all dried to 19 %)

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