

NLGA Standard Grading Rules for Canadian Lumber (2025 edition)

Supplement No. 2 (effective May 1, 2026)

Approved by the NLGA Board, CLSAB, and the ALSC Board of Review

This Supplement is issued to revise the 2025 edition of the NLGA Standard Grading Rules for Canadian Lumber and the EU Annex. The revisions are summarized below:

NLGA Standard Grading Rules

Para. 7 *revise to include lumber from U.S. grown logs and manufactured in Canada*

Paras. 40, 42, 46, 120a, 850, 901a *revise to reference appropriate Paras. 7 and/or 7a and/or 7b*

EU Annex

All Sections *revise to include new species groups as per Para. 7 revisions and update to include MSR provisions*

Additions and deletions to the Grading Rule paragraphs and EU Annex sections are shown in **red** and **strikeout**, respectively.

Para. 7 SPECIES COVERED

The provisions of the NLGA Grading Rules apply to the following **specified categories of species and species groups** ~~softwood and hardwood species grown and manufactured in Canada~~.

Para. 7a SPECIES GROWN AND MANUFACTURED IN CANADA

All lumber produced from the following species grown and manufactured in Canada may be graded under the provisions of applicable product paragraphs contained in the NLGA Grading Rules.

Softwood Lumber Species Grown and Manufactured in Canada Covered by the NLGA Grading Rules

Commercial Name	Botanical Name	Grade Stamp Identification
Eastern White Cedar or Northern White Cedar	<i>Thuja occidentalis</i>	East White Cedar (N) or EW Cedar (N)
Western Red Cedar or Red Cedar	<i>Thuja plicata</i>	WR Cedar (N)
Yellow Cedar or Pacific Coast Yellow Cedar or Yellow Cypress	<i>Cupressus or Chamaecyparis nootkatensis</i>	Y Cedar (N)
Alpine Fir or Subalpine Fir	<i>Abies lasiocarpa</i>	Alpine Fir (N) or AP Fir (N)
Amabilis Fir or Pacific Silver Fir	<i>Abies amabilis</i>	AM Fir (N)
Balsam Fir	<i>Abies balsamea</i>	B Fir (N)
Grand Fir	<i>Abies grandis</i>	G Fir (N)

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Eastern Hemlock	<i>Tsuga canadensis</i>	East Hemlock (N) or E Hem (N)
Western Hemlock	<i>Tsuga heterophylla</i>	W Hem (N)
Tamarack or Eastern Larch	<i>Larix laricina</i>	Tam (N)
Western Larch	<i>Larix occidentalis</i>	Larch (N)
Douglas-Fir	<i>Pseudotsuga menziesii</i>	D Fir (N)
Eastern White Pine	<i>Pinus strobus</i>	East White Pine (N) or EW Pine (N)
Jack Pine	<i>Pinus banksiana</i>	J Pine (N)
Lodgepole Pine	<i>Pinus contorta</i>	L Pine (N)
Ponderosa Pine or Yellow Pine	<i>Pinus ponderosa</i>	P Pine
Red Pine	<i>Pinus resinosa</i>	R Pine
Western White Pine or Idaho Pine	<i>Pinus monticola</i>	WW Pine
Whitebark Pine	<i>Pinus albicaulis</i>	WB Pine
Black Spruce	<i>Picea mariana</i>	B Spr (N)
Sitka Spruce or Coast Sitka Spruce	<i>Picea sitchensis</i>	C Sitka
Engelmann Spruce	<i>Picea engelmannii</i>	E Spr (N)
Norway Spruce	<i>Picea abies</i>	N Spr (N)
Red Spruce	<i>Picea rubens</i>	R Spr (N)
White Spruce	<i>Picea glauca</i>	W Spr (N)
Western White Spruce		WW Spr (N)

Hardwood Lumber Species Grown and Manufactured in Canada Covered by the NLGA Grading Rules

Commercial Name	Botanical Name	Grade Stamp Identification
Aspen or Aspen Poplar or Trembling Aspen	<i>Populus tremuloides</i>	Aspen (N)
Largetooth Aspen	<i>Populus grandidentata</i>	
Black Cottonwood	<i>Populus trichocarpa</i>	B Cot
Balsam Poplar	<i>Populus balsamifera</i>	B Pop
Red Alder **	<i>Alnus rubra</i>	Alder (N)
White Birch **	<i>Betula papyrifera</i>	W Birch

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** Red Alder and White Birch do not have approved design values for structural lumber use in the U.S. For shipments to the U.S., these species shall not be intermingled with structural lumber of any species that have assigned design values, nor shall they be grade-stamped to any grade within the NLGA Grading Rules that have assigned U.S. design values.

Para. 7a — ~~SPECIES GROUPS~~

A number of **Certain** Canadian **grown** timber species that ~~grow~~ **are grown** together and are jointly harvested, manufactured, and marketed, have similar performance properties which make them interchangeable in use. For the purposes of identification in the marketplace (because some species cannot be visually separated in lumber form) and standardization of assigned lumber design values, certain species are given a common grade stamp designation.

The **Canadian grown** species groups which may be grade-stamped with a common designation are listed in the following table.

Species Groups Grown and Manufactured in Canada Covered by the NLGA Grading Rules

Grouped Species	Commercial Designation	Grade Stamp Identification
Douglas-Fir Western Larch	Douglas Fir-Larch (North)	D Fir-L (N)
Western Hemlock Amabilis Fir	Hem-Fir (North)	Hem-Fir (N)
White Spruce Engelmann Spruce Black Spruce Red Spruce Lodgepole Pine Jack Pine Alpine Fir Balsam Fir	S-P-F or Spruce-Pine-Fir	S-P-F or SPF
Any Canadian lumber species covered by the NLGA Grading Rules (see Para. 7a) excluding except for Red Alder & White Birch when marketed in the U.S.	Northern Species	North Species or N. Species
Eastern Hemlock Tamarack	Eastern Hemlock-Tamarack (North)	Hem-Tam (N)
Yellow Cedar Western Red Cedar	Western Cedars (North)	W Cedar (N)
Aspen Poplar Largetooth Aspen Balsam Poplar	Northern Aspen	N. Aspen
Douglas-Fir Western Larch Western Hemlock Amabilis Fir Coast Sitka Spruce	Coast Species	Coast Species

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Since the composition of species in timber stands varies and there is no practical way to determine the species percentage that might be included in a particular shipment, lumber marked with a species group grade stamp may be all of any one species or some mixture of any of the species in the group.

Para. 7b ~~STRUCTURAL DESIGN VALUES~~ SPECIES GROWN IN THE U.S. AND MANUFACTURED IN CANADA

Structural dimension lumber produced from the following species grown in the U.S. and manufactured in Canada may be graded under the provisions of Paras. 121, 122, 124, 128, and 129.

Structural Lumber Species Grown in the U.S. and Manufactured in Canada Covered by the NLGA Grading Rules

Commercial Name	Botanical Name	Grade Stamp Identification
White Spruce	<i>Picea glauca</i>	W Spr
Red Spruce	<i>Picea rubens</i>	R Spr
Black Spruce	<i>Picea mariana</i>	B Spr
Norway Spruce	<i>Picea abies</i>	N Spr
Engelmann Spruce	<i>Picea engelmanni</i>	E Spr
Sitka Spruce	<i>Picea sitchensis</i>	S Spr
Balsam Fir	<i>Abies balsamea</i>	B Fir
Jack Pine	<i>Pinus banksiana</i>	J Pine
Red Pine	<i>Pinus resinosa</i>	Red Pine
Lodgepole Pine	<i>Pinus contorta</i>	L Pine
Douglas-Fir	<i>Pseudotsuga menziesii</i>	D Fir
Western Larch	<i>Larix occidentalis</i>	Larch
Western Hemlock	<i>Tsuga heterophylla</i>	W Hem
Amabilis Fir	<i>Abies amabilis</i>	AM Fir

U.S. grown species may be identified singly or by group on the grade stamp. The recognized species groups which may be grade-stamped with a common designation are listed in the following table.

Structural Lumber Species Groups Grown in the U.S. and Manufactured in Canada Covered by the NLGA Grading Rules

Grouped Species	Commercial Designation	Grade Stamp Identification
White Spruce Black Spruce Red Spruce Norway Spruce Engelmann Spruce Sitka Spruce Jack Pine Red Pine Lodgepole Pine Balsam Fir	U.S. Softwoods	SW (US) *
Douglas-Fir Western Larch	Douglas Fir-Larch	D Fir-L
Western Hemlock Amabilis Fir	Hem-Fir	Hem-Fir

*** For shipments to the United States, grade-stamped structural lumber shall show the SW (US) / S-P-F (S) species group combination designation.**

Para. 7c Structural Design Values

Engineering design values were developed by NLGA for the visual grades of structurally rated lumber products of Canadian-grown species.

Grades of glued-wood lumber qualified under Para. 129 of these rules and the applicable NLGA Special Products Standards are assigned the same design values as equivalent grades of solid-sawn dimension lumber.

For Use in Canada:

NLGA design values for use in Canada are approved by the CSA Technical Committee on Engineering Design in Wood. These design values are tabled in Paras. 851 to 857 and also published in CSA O86 - Engineering design in wood.

Canadian design values **for Canadian grown species** were established by the sampling and testing of four major species groups: S-P-F, D Fir-L (N), Hem-Fir (N) and North Species. All individual **Canadian grown** species listed in **Para. 7a the NLGA Grading Rules** are included in one of these groups. **Refer to Paras. 7 and 7a.**

Where grade stamps of structurally graded products show individual **Canadian grown** species, alone or in combination, other than those species named in S-P-F, D Fir-L (N), or Hem-Fir (N) groups, the design values of North Species shall apply.

For U.S. grown species and species groups manufactured in Canada, identified in Para. 7b, the design values of D Fir-L are equivalent to D Fir-L (N) and design values of Hem-Fir are equivalent to Hem-Fir (N) as assigned by Table 6.2 of CSA O86. For SW (US), the design values of North Species shall apply.

For Use in the U.S.:

NLGA design values **of Canadian grown species** for use in the U.S. are approved by the ALSC Board of Review.

U.S. design values for NLGA structural lumber grades are tabled in Paras. 902 to 909 and are also published in the American Wood Council (AWC) “National Design Specification (NDS) Supplement”.

U.S. design values were established by the sampling and testing of four major species groups: S-P-F, D Fir-L (N), Hem-Fir (N), and North Species and other individual species as noted by structural product category below:

Dimension Lumber (Paras. 121, 122 and 124)

U.S. design values for dimension lumber are listed in NLGA Paras. 902 to 904 and published in Table 4A of the AWC NDS Supplement. In addition to the four main NLGA species groups (S-P-F, D Fir-L (N), Hem-Fir (N), and North Species), the individual species of Coast Sitka, Norway Spruce (N), and Yellow Cedar (N) have separate assigned design values.

Where individual species, other than those species named in S-P-F, D Fir-L (N) or Hem-Fir (N) groups or individual species of Coast Sitka, Norway Spruce (N), and Yellow Cedar (N), are grade-stamped alone or in combination, the design values of North Species shall apply.

Timbers (Paras. 130 and 131)

U.S. design values for timbers are listed in Paras. 907 and 908, and in Table 4D of the AWC NDS Supplement. In addition to the three main NLGA species groups of S-P-F, D Fir-L (N), and Hem-Fir (N), the following individual species or species groups also have separate assigned design values for timbers; Coast Sitka, Hem-

Tam (N), Ponderosa Pine, Red Pine, Western Cedars (N), Western Hemlock (N), and Western White Pine.

Note: *For use in the U.S., there are no assigned timber design values for the individual species of Norway Spruce (N), EW Pine (N), Black Cottonwood, Red Alder, and White Birch species or the species groups of Northern Species, Coast Species, and Northern Aspen.*

Decking (Para. 127)

U.S. design values for decking are tabled under Para. 906 and published in Table 4E of the AWC NDS Supplement.

Mills may separate individual species of structurally graded products for manufacturing or marketing purposes, although there is no advantage in such separation for design values.

Where shipments include species from two or more species groups, which are not separated, the lowest design values of these species groups shall apply.

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Para. 40 GRADING RULE

When lumber is graded in accordance with the NLGA Grading Rules, grade stamps of an accredited Grading Agency shall contain the abbreviation “NLGA”.

If ~~When~~ species or species groups **not listed in Paras. 7a or 7b** ~~recognized by the NLGA Grading Rules (see Paras. 7 and 7a)~~ are designated on the grade stamp, either singly or in combination with NLGA species, the “NLGA” designation shall not be included on the stamp.

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Para. 42 SPECIES

The species or species group is identified on the grade stamp by species name, by approved abbreviation, or by approved species group identification (see **Para. 7** ~~Paras. 7 and 7a~~).

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Para. 46 SPECIFIED SPECIES

All grades in these rules apply to all species or species groups listed in **Para. 7a** ~~Paras. 7 and 7a~~ unless otherwise specified. Although some paragraphs are identified with particular species, this does not preclude other species being graded under these paragraphs on request.

Species or species groups listed in Para. 7b shall only be graded under the provisions of Paras. 121, 122, 124, 128, or 129.

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Para. 120a NGR – INTRODUCTION

The NGR applies to all species (see **Para. 7** ~~Paras. 7 and 7a~~) of dimension lumber which are covered by the NLGA Grading Rules, developed and approved under CSA O141 and PS 20.

PS 20 stipulates that a NGR Committee composed of members competent in the field of lumber technology shall “*establish, maintain and make fully and fairly available, nomenclature and descriptions of grades for dimension lumber*”. NLGA is a participating member of the NGR Committee.

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Para. 850 CANADIAN DESIGN VALUES – INTRODUCTION

4th paragraph...

All species included under the NLGA Grading Rules (refer to **Para. 7** ~~Paras. 7 and 7a~~) are grouped into four species groups for the purposes of assigning design values in Canada. These species groups are D Fir-L (N), Hem-Fir (N), S-P-F, and North Species.

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Para. 901a U.S. DESIGN VALUE ESTABLISHMENT AND APPLICATION

Reference design values and adjustment factors found in Paras. 901 to 909 apply to lumber of NLGA species and species groups (see **Para. 7** ~~Paras. 7 and 7a~~) for use in the United States.

EU ANNEX

1.0 INTRODUCTION

For export of structural lumber to the European Union, producers must, in addition to **following** the NLGA Grading Rules, Paras. 120, **121, 122, and to 124 for visually graded lumber, and Para. 128 and NLGA Special Products Standard SPS 2 for machine graded lumber**, also grade to the additional requirements of the CEN Standards referenced below:

EN 336	Structural timber – Sizes, permissible deviations
EN 338	Structural timber – Strength classes
EN 1912	Structural timber – Strength classes - Assignment of visual grades and species

- EN 14081-1** Timber structures – Strength graded structural timber with rectangular cross section – Part 1: General requirements
- EN 14081-2** **Timber structures – Strength graded structural timber with rectangular cross section – Part 2: Machine grading; additional requirements for type testing**
- EN 14081-3** **Timber structures – Strength graded structural timber with rectangular cross section – Part 3: Machine grading; additional requirements for factory production control**

All sections of the NLGA Grading Rules **and NLGA Special Products Standard SPS 2** shall apply except for those specific sections listed in this Annex that exceed the NLGA minimum requirements. The following sections detail the additional requirements as applied by CLSAB.

1.1 PERMITTED CROSS-SECTIONAL DEVIATIONS ~~SIZE TOLERANCES~~

In EN 336, provisions are made for dimensional deviation within two tolerance classes. These size tolerances are provided in Table 1.

Table 1 Size Tolerances

Thickness & Width	Tolerance Class 1	Tolerance Class 2
≤ 100 mm	(-1.0 to +3.0) mm	(-1.0 to +1.0) mm
> 100 mm up to 300 mm	(-2.0 to +4.0) mm	(-1.5 to +1.5) mm
> 300 mm	(-3.0 to +5.0) mm	(-2.0 to +2.0) mm

Note: *The Tolerance Class to which the lumber has been produced should be indicated on the **accompanying commercial ~~contract~~** documents. NLGA provisions shall apply to dressed lumber.*

1.2 MEASUREMENT

For the purpose of determination of cross-section deviations for lumber ordered to Tolerance Class 1 or 2, the reference moisture content is 20%.

The term “**Target Size**” may appear on order contracts. The EN 336 - Clause 3.1 definition for “**target size**” is: “size specified (at the reference moisture content), and to which the deviations, which would ideally be zero, are to be related.”

1.3 RATE OF GROWTH (ALL SPECIES)

For NO. 2 and higher grades - restricted to medium (see Para. 350). All other grades - average ring width shall not exceed **6 ~~10~~** mm.

1.4 BIOLOGICAL CHARACTERISTICS

No active insect infestation permitted.

Unsound wood (excluding white specks) - not permitted in NO. 2 and higher grades.

1.5 WANE

The allowable wane permitted shall not be greater than 1/3 of the thickness and/or width of the piece.

Note: ~~For reference, EN 14081-1, Annex A.2.1 states: “The maximum wane permitted shall not reduce the edge and face dimensions to less than 2/3 of the basic dimensions of the piece.”~~

The limits on wane are absolute. The following restrictions apply:

- no provisions for averaging wane over the length of the piece,
- no allowance for wane dips, and
- manufactured holes are treated equivalent to wane (not equivalent to a knot hole).

1.6 WARP (DISTORTION)

The maximum limits for warp (distortion) are provided in Table 2. The maximum distortion is measured over 2 m of length.

Table 2 Warp (Distortion)

Warp Type	Maximum Permissible Warp per Strength Class	
	C18 and lower	Above C18 C20 and higher
Bow	20 mm	10 mm
Crook (Spring)	12 mm	8 mm
Twist	2 mm per 25 mm width	1 mm per 25 mm width
Cup	As per NLGA Grading Rules	

1.7 SHAKE, CHECKS, AND SPLITS (FISSURES)

At a minimum, the limiting characteristics for shake, checks, and splits (collectively referred to as fissures) are the same as the NLGA Grading Rules except in NO. 2 and Studs. For these grades, through shake shall not exceed 600 mm in any 1 m of length. See Table 3 for length limits.

Table 3 Maximum Length of Fissures by Strength Class

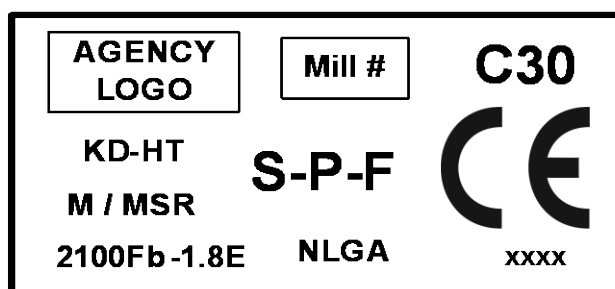
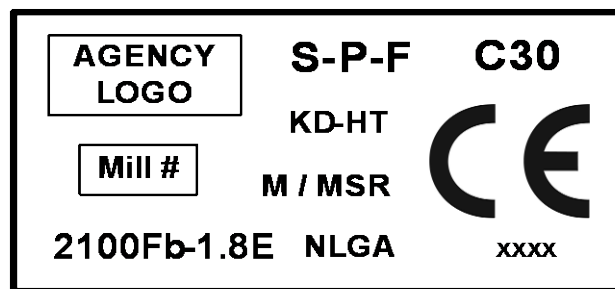
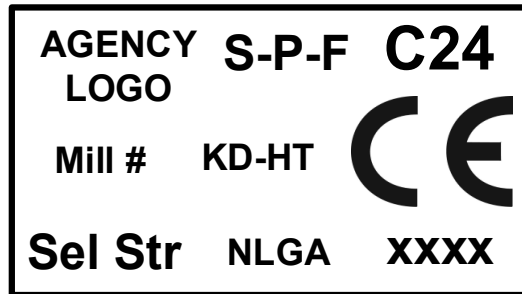
Fissure depth	C18 and lower	Above C18 C20 and higher
Less than 1/2 the thickness	Ignored for all strength classes.	
Not through the thickness	No longer than 1.5 m or 1/2 the length of the piece, whichever is the lesser.	No longer than 1.0 m or 1/4 the length of the piece, whichever is the lesser.
Through the thickness	No longer than 1 m or 1/4 the length of the piece, whichever is the lesser. If at ends, a length not longer than 2 times the width of the piece.	Only permitted at the ends, with a length not longer than the width of the piece.

1.8 GRADE STAMP REQUIREMENTS

In addition to the grade-stamping requirements of the NLGA Grading Rules, Para. 39, ~~structural lumber also graded in accordance with EN 14081-1~~ **for visually graded lumber and Sections 9 and 16.3 of the NLGA Special Products Standard SPS 2 for machine graded lumber, shall include** the following information **shall also be included** on the grade stamp:

- The stylized “CE” mark.
- The “**identification number**” of the Notified Body **placed directly beneath the stylized CE mark.**
- **The CEN Strength class as identified in Appendix 1 or 2 of this Annex, as applicable.**
- **The symbol “M” when machine graded in accordance with Paragraph 128 of the NLGA Grading Rules and NLGA Special Products Standard SPS 2.**
- **The seasoning at the time of grading, “DRY GRADED” or “KD”.** The term “KD” is acceptable if cross-referenced to “Dry Graded” in the Declaration of Performance (DOP) that the manufacturer supplies with the product.
- If applicable, “HT” to indicate phytosanitary heat treatment.

The following are examples of typical North American / EU Lumber grade stamps that are acceptable to the CLSAB and the ALSC for use in the North American and EU markets.



1.9 C20 STRENGTH CLASS - GRADE MARKING

As per Appendix 1 of this Annex, the “C20” designation may be applied to “NO. 1 & Btr” grade stamped S-P-F, D Fir-L (N), **D Fir-L**, Hem-Fir (N), and **Hem-Fir** lumber.

The following restrictions apply to sorting and grade-stamping “NO. 1 & Btr” lumber with a “C20” designation:

- a) lumber shall be sorted from primary log breakdown mill run stock only,
- b) during a production run, it is not permissible to simultaneously sort and/or grade stamp any other grades with any higher design values than the “NO. 1” grade, even if pieces would otherwise qualify. For example: Select Structural, some grades of MSR, MEL, lamination, scaffold plank, and decking, and
- c) the “NO. 1 & Btr” combination grade stamp shall not be applied to regraded, remanufactured, pre-graded, or pre-sorted lumber.

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APPENDIX 1: ASSIGNMENT OF CANADIAN MANUFACTURED SPECIES AND GRADES TO CEN STRENGTH CLASSES (**VISUALLY GRADED LUMBER**)

Species Group / Species	EN 14081-1 Marketing Codes for Species Combinations	Strength Class				
		C14	C16	C18	C20	C24
S-P-F	WPCE	Const Stud	NO. 1 NO. 2	-	NO. 1 & Btr	Sel Str
D Fir-L (N)	WPSM	Const Stud	NO. 1 NO. 2	-	NO. 1 & Btr	Sel Str
Hem-Fir (N)	WABA	Const Stud	NO. 1 NO. 2	-	NO. 1 & Btr	Sel Str
WR Cedar (N)	THPL	NO. 1 NO. 2	-	Sel Str	-	-
Sitka Spruce	PCST	NO. 1 NO. 2	-	Sel Str	-	-
SW (US) *	WPCE	Const Stud	NO. 1 NO. 2	-	-	Sel Str
D Fir-L	WPSM	Const Stud	NO. 1 NO. 2	-	NO. 1 & Btr	Sel Str
Hem-Fir	WABA	Const Stud	NO. 1 NO. 2	-	NO. 1 & Btr	Sel Str

* **SW (US)** marked under CEN standards requirements does not include Norway Spruce (*Picea abies*), Sitka Spruce (*Picea sitchensis*) or Red Pine (*Pinus resinosa*) grown in the United States. These species are not listed under the WPCE marking species combination code in EN 14081-1.

APPENDIX 2: ASSIGNMENT OF CANADIAN MANUFACTURED GRADES TO CEN STRENGTH CLASSES (MACHINE GRADED LUMBER)

Strength Class	MGL Grade
C16	1200Fb-1.2E
C20	1450Fb-1.3E
C24	1650Fb-1.5E
C27 ⁽¹⁾	1800Fb-1.6E
C30 ⁽²⁾	1950Fb-1.7E, 2100Fb-1.8E, 2400Fb-2.0E
C35	2700Fb-2.2E
<i>⁽¹⁾ Nominal 2x3 size (38.1 x 63.5 mm) 1800Fb-1.6E is assigned to strength class C24</i>	
<i>⁽²⁾ Nominal 2x3 size (38.1 x 63.5 mm) 1950Fb -1.7E is assigned to strength class C27</i>	

When Norway Spruce (*Picea abies*), Sitka Spruce (*Picea sitchensis*), and Red Pine (*Pinus resinosa*), grown in the United States but manufactured in Canada, are machine graded in accordance with Para. 128 of the NLGA Grading Rules and NLGA Special Products Standard SPS 2 and demonstrate that they meet the requirements for a CEN strength class, they can be marketed as individual species to EU member states. The lumber shall be identified by its individual species abbreviation.