

NLGA Standard Grading Rules for Canadian Lumber (2025 edition)

Supplement No. 1 (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 NGR Interpretations. The revisions are summarized below:

NLGA Standard Grading Rules

Para. 39 *revise to be consistent with CSA O141 and PS 20*

Para. 44 *replace paragraph in its entirety to be consistent with CSA O141 and PS 20*

Paras. 121a, 122b, and 124c.

incorporate NGR changes to permitted shake

Paras. 121a, 122a, 122b, 122c, 124a, 124b, 124c, and 124d.

incorporate NGR changes to permitted holes

Para. 122a *incorporate NGR clarification that the rule for wane dip on end of a piece does not apply to the Construction grade similar to the NO. 1 grade*

Paras. 122b and 124c. *incorporate NGR clarification of permitted unsound wood*

Para. 715 *revise to be consistent with CSA O141 and PS 20*

Para. 717 *remove as definition is now under new Para. 725*

Para. 725 *new paragraph to define moisture content terms*

NGR Interpretations

Section 1.17 *Unsound wood - permissible peck*

Additions and deletions to the paragraphs and interpretations are shown in **red** and **strikeout**, respectively.

PARA. 39 GRADE STAMPS

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Each Grade stamp shall display the following:

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f) seasoning state (Para. 44) at time of **surfacing grade stamping** for boards and dimension lumber less than nominal 5 inches in thickness.

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PARA. 44 MOISTURE CONTENT STANDARDS

Para. 44 is replaced in its entirety as follows:

~~The moisture content of wood is the weight of water in wood expressed as a percentage of the weight of the wood from which all water has been removed (oven dry). Moisture is removed from lumber by air drying, by use of dry kilns, or by other artificial means.~~

~~Dry Lumber is lumber which has been dried to a moisture content of 19% or less.~~

~~Green Lumber is lumber having a moisture content of over 19%.~~

~~Rough lumber of any size does not require (but may include) a seasoning designation on the grade stamp. If so designated, rough lumber which has been dried to a moisture content of 19% or less may~~

be stamped “DRY” or if kiln-dried to a maximum moisture of 19% may be stamped “KD”. Rough green lumber having a moisture content greater than 19% may be stamped “GRN”.

Moisture content designations for surfaced lumber are as follows:

a) Boards and Dimension Lumber

~~Boards or dimension lumber (less than nominal 5" in thickness) surfaced at a moisture content of 19% or less shall be stamped “S-DRY”, or if kiln-dried to a maximum moisture content of 19%, lumber may be stamped “KD” at time of surfacing.~~

~~Grade stamps for boards or dimension lumber surfaced at a moisture content greater than 19% shall show “S-GRN” on the stamp.~~

~~Except as otherwise provided, any boards or dimension lumber surfaced at a moisture content of 15% or less may be stamped “MC15”, or if kiln-dried to a maximum moisture content of 15%, lumber may be stamped “KD15” at time of surfacing. It is also permissible to stamp as “S-DRY” or “KD” if air-dried or kiln-dried lumber, respectively, is surfaced at a moisture content of 15% or less. However, if such lumber is invoiced as “MC15” or “KD15”, or some lesser moisture content, and reinspection is made, the invoice provisions shall prevail for purposes of reinspection.~~

b) Clears, Selects, Factory Lumber, and Moulding Stock

~~All grades nominal 2" or less in thickness sold as DRY shall be dried to 15% maximum moisture content. Stock greater than nominal 2" thick shall be dried to 19% maximum moisture content.~~

~~Orders for lumber with moisture content varying from the above shall be subject to special agreement.~~

c) Lumber Nominal 5" and Thicker

~~Moisture content of nominal 5" and thicker lumber shall be subject to special agreement.~~

~~All lumber shrinks and expands within narrow limits with changes in moisture content much as most other materials swell or shrink with changes in temperature.~~

~~Natural shrinkage or expansion in width and thickness may average approximately 4% from fibre saturation point (approximately 30% moisture content) to normal dry service conditions. Individual pieces may have more or less shrinkage.~~

~~When lumber is further dried after surfacing an allowance may be made of 1% (0.7% for Western Red and Eastern White Cedar) reduction in size for each 4% reduction in moisture content based on the actual moisture content of the dry items and on 30% moisture content for unseasoned items. The same tolerance will be applied to dry items subject to re-absorption.~~

~~Shrinkage or expansion percentages are average values. Shrinkage and expansion of individual pieces may vary. In large sizes, where it is impractical to establish the moisture content, any allowance for shrinkage or expansion must be left to the judgement of experienced personnel.~~

~~*Note: The range of shrinkage of individual pieces from experimental observation is from 2% to 7%. Variables that affect measurement and shrinkage of lumber are density, species, grain orientation and allowable grade characteristics. (See Forintek Canada Corp. Jessome, A.P., 2000, SP-514 Report or the U.S. Forest Products Laboratory, Research Reports 15 and 30).*~~

The moisture content designations of lumber grade stamped under these rules are listed below. No other moisture content designations or marks are permitted on the grade stamp.

Moisture is removed from lumber by air drying, by use of dry kilns, or by other artificial means. Terms are defined in Paras. 724 and 725 of the Glossary.

44a. Grade Stamping – Lumber That Has Not Been Surfaced

Lumber of any size that has not been surfaced (rough) does not require, but may include, a moisture content designation.

If so designated, the moisture content at time of grade stamping shall be identified on the grade stamp with standardized marks, as follows:

- a) “GRN” for green lumber that has not been surfaced,
- b) “DRY” for dry lumber that has not been surfaced, and
- c) “KD” for lumber that has not been surfaced, if kiln-dried to a moisture content of 19% or less.

44b. Grade Stamping – Surfaced Boards and Dimension Lumber

The moisture content designation on surfaced boards and dimension lumber, at time of grade stamping, shall be identified on the grade stamp with standardized marks, as follows:

- a) “S-GRN” for surfaced green lumber,
- b) “S-DRY” for surfaced dry lumber, and
- c) “KD” for surfaced lumber that has been kiln-dried to a moisture content of 19% or less.

Except as otherwise provided, any surfaced boards or dimension lumber dried to a lower moisture content than the 19% or less standard, may be identified on the grade stamp as follows:

- a) “MC xx” for surfaced dry lumber, and
- b) “KD xx” for surfaced lumber that has been kiln-dried to a moisture content of xx% or less.

where “xx” is the numeric moisture content percentage (e.g., MC 15, KD 15, MC 12, and KD 12).

It is also permissible to stamp as “S-DRY” or “KD” if dry or kiln-dried lumber, respectively, is surfaced at a lower moisture content than the 19% or less standard. However, if such lumber is invoiced as a lower moisture content and reinspection is made, the invoice provisions shall prevail for purposes of reinspection.

44c. Grade Stamping – Nominal 5" and Thicker Lumber

Moisture content limits for nominal 5" and thicker lumber (timbers) shall be subject to special agreement. If the same limits as for boards and dimension lumber are applied, then the moisture content designations in Paras. 44a and 44b may be used.

44d. Grade Stamping – Clears, Selects, Factory Lumber, and Moulding Stock

Unless otherwise specified, all grades of specialty lumber stock, nominal 2" or less in thickness, sold as “DRY”, shall be dried to 15% maximum moisture content.

Specialty lumber stock greater than nominal 2" thick, sold as “DRY”, shall be dried to 19% maximum moisture content.

Orders for specialty lumber with moisture content varying from the above shall be subject to special agreement.

44e. Lumber Size Variation Due to Moisture Changes

Natural shrinkage or expansion in width and thickness may average approximately 4% from fibre saturation point (approximately 30% moisture content) to normal dry service conditions. Individual pieces may have more or less shrinkage.

Variations from the specified standard green or dry sizes shall be recognized by allowing approximately 1% shrinkage or expansion (whether by drying or resorption) in thickness and width for each four percentage points of variation in moisture content, except for western red cedar and eastern white cedar, for which the allowance shall be 0.7% for each four percentage points of variation in moisture content.

Shrinkage allowances for dry lumber are determined assuming maximum moisture content at the time of surfacing and for green lumber assuming 30% moisture content. Expansion allowances are determined assuming a typical equilibrium moisture content or other suitable reference moisture content.

Note: Shrinkage or expansion percentages are average values. Shrinkage and expansion of individual pieces may vary.

In large sizes, where it is impractical to establish the moisture content, any allowance for shrinkage or expansion must be left to the judgement of experienced personnel.

Note 1: The range of shrinkage of individual pieces from experimental observation is from 2% to 7%. Variables that affect measurement and shrinkage of lumber are density, species, grain orientation and allowable grade characteristics. (See Forintek Canada Corp. - Jessome, A.P., 2000, SP-514 Report or the U.S. Forest Products Laboratory, Research Reports 15 and 30).

Note 2: The minimum green sizes in the Tables provided in Paras. 820b and 820f are based on shrinkage factors of 2.35% in thickness and 2.80% in width from the fibre saturation point to a 19% maximum moisture content, with recognition given to manufacturing practices, differences in shrinkage characteristics between species of lumber, and the most practical groupings for efficient use.

PARA. 121a. “STUD”

Characteristics permitted and limiting provisions shall be:

- Checks** seasoning checks not limited. Through checks at ends are limited as splits.
- Knots** not limited as to quality but are well spaced and are permitted in the following sizes (see Para. 320b) or their equivalent displacement:

Nominal Width	At Edge Wide Face	Centreline Wide Face	Holes* (Any Cause)
2"	¾"	¾"	¾"
3"	1 ¼"	1 ¼"	1 ¼"
4"	1 ¾"	2 ½"	1 ½"
5"	2 ¼"	3"	1 ¾"
6"	2 ¾"	3 ¾"	2"
8"	3 ½"	4 ½"	2 ½"
10"	4 ½"	5 ½"	3"
12"	5 ½"	6 ½"	3 ½"
14"	6"	7"	4"

* Average of one hole or equivalent smaller holes per 1 lineal ft.

- Manufacture** Standard “F”. See Para. 722f.
- Pitch & Pitch Streaks** not limited.
- Pockets - pitch or bark** not limited.
- Shake** surface shake permitted. If through at ends, limited as splits. Elsewhere through shakes 1/3 the length.

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PARA. 122a. “CONSTRUCTION” LIGHT FRAMING

Characteristics permitted and limiting provisions shall be:

- Checks** surface seasoning checks not limited. Through checks at ends are limited as splits.
- Knots** sound, firm, encased, and pith, must be tight and are permitted in the following sizes (see Para. 320b) or their equivalent displacement:

Nominal Width	Anywhere on Wide Face	Unsound or Loose Knots and Holes* (Any Cause)
2"	¾"	⅝"
3"	1 ¼"	¾"
4"	1 ½"	1"

* **Average of** one hole or equivalent smaller holes per 3 lineal ft.

- Manufacture** Standard “E”. See Para. 722e.
- Pitch & Pitch Streaks** not limited.
- Pockets - pitch or bark** not limited.
- Shake** if through at ends, limited as splits. Surface shakes up to 2' long.
- Skips** hit and miss skips in a maximum of 10% of the pieces. See Para. 720f.
- Slope of Grain** 1 in 6.
- Splits** equal in length to the width of the piece.
- Stain** stained sapwood. Firm heart stain or firm red heart.
- Wane** **follows the NO. 1 restrictions.** 1/4 the thickness and 1/4 the width full length, or equivalent on each face, provided that wane does not exceed 1/2 the thickness or 1/3 the width for up to 1/4 the length. See Para. 750.
- Warp** 1/2 of medium. See Para. 752.

PARA. 122b. “STANDARD” LIGHT FRAMING

Characteristics permitted and limiting provisions shall be:

- Checks** seasoning checks not limited. Through checks at ends are limited as splits.
- Knots** not restricted as to quality and are permitted in the following sizes (see Para. 320b) or their equivalent displacement:

Nominal Width	Anywhere on Wide Face	Holes* (Any Cause)
2"	1"	¾"
3"	1 ½"	1"
4"	2"	1 ¼"

*Average of one hole or equivalent smaller holes per 2 lineal ft.

- Manufacture** Standard “F”. See Para. 722f.
- Pitch & Pitch Streaks** not limited.
- Pockets - pitch or bark** not limited.
- Shake** if through at ends, limited as splits. Away from ends through shakes up to 2' long, well separated. If not through, single shakes shall not exceed 4' ~~3'~~ long or 1/4 the length, whichever is greater. **In pieces less than 8' long, surface shake 1/2 the length, through shake 1/4 the length.**
- Skips** hit & miss, with a maximum of 5% of the pieces containing hit or miss or heavy skip 2' or less in length. See Paras. 720e, 720f, and 720g.
- Slope of Grain** 1 in 4.
- Splits** equal in length to 1 ½ times the width of the piece.
- Stain** stained sapwood. Firm heart stain or firm red heart not limited.
- Unsound Wood (excluding white speck)**
not permitted in thicknesses over nominal 2". In nominal 2" lumber, small spots or streaks of firm honeycomb or peck are limited to 1/6 the width. In 2" lumber, any
Any other unsound wood is limited to a spot 1/12 the width on the wide face; not to exceed maximum wane on the narrow face, and 2" in length or equivalent smaller- determined by the wide face and limited to a spot 1/12 the nominal width and 2" in length or equivalent smaller. This decay can occur on any face provided the decay does not destroy the nailing edge.
- Wane** 1/3 the thickness and 1/3 the width, full length or equivalent on each face, provided that wane does not exceed 2/3 the thickness or 1/2 the width for up to 1/4 the length. See Para. 750.
- Warp** light. See Para. 752.
- White Speck** firm, 1/3 the face or equivalent.

PARA. 122c. “UTILITY” LIGHT FRAMING

Characteristics permitted and limiting provisions shall be:

- Checks** seasoning checks not limited. Through checks at ends are limited as splits.
Knots not restricted as to quality and are permitted in the following sizes (see Para. 320b) or their equivalent displacement:

Nominal Width	Anywhere on Wide Face	Holes* (Any Cause)
2"	1 ¼"	1"
3"	2"	1 ¼"
4"	2 ½"	1 ½"

* Average of one hole or equivalent smaller holes per 1 lineal ft.

Manufacture

PARA. 124a. “SELECT STRUCTURAL”

Characteristics permitted and limiting provisions shall be:

- Checks** surface seasoning checks, not limited. Through checks at ends are limited as splits.
Knots sound, firm; encased and pith knots, if tight and well spaced, are permitted in sizes (see Para. 320b) not to exceed the following, or equivalent displacement:

Nominal Width	At Edge Wide Face	Centreline Wide Face	Unsound or Loose Knots and Holes* (Any Cause)
2"	⅜"	⅜"	⅜"
3"	½"	½"	½"
4"	¾"	⅞"	¾"
5"	1"	1 ½"	⅞"
6"	1 ⅛"	1 ⅞"	1"
8"	1 ½"	2 ¼"	1 ¼"
10"	1 ⅞"	2 ⅝"	1 ¼"
12"	2 ¼"	3"	1 ¼"
14"	2 ⅜"	3 ¼"	1 ¼"
16"	2 ⅝"	3 ⅞"	1 ¼"
18"	2 ½"	3 ½"	1 ¼"

* Average of one hole or equivalent smaller holes per 4 lineal ft.

Manufacture

PARA. 124b. “NO. 1” STRUCTURAL

Characteristics permitted and limiting provisions shall be:

- Checks** surface seasoning checks, not limited. Through checks at ends are limited as splits.
Knots sound, firm; encased and pith knots, if tight and well spaced, are permitted in sizes (see Para. 320b) not to exceed the following or equivalent displacement:

Nominal Width	At Edge Wide Face	Centreline Wide Face	Unsound or Loose Knots and Holes* (Any Cause)
2"	½"	½"	½"
3"	¾"	¾"	¾"
4"	1"	1 ½"	1"
5"	1 ¼"	1 ⅞"	1 ⅛"
6"	1 ½"	2 ¼"	1 ¼"
8"	2"	2 ¾"	1 ½"
10"	2 ½"	3 ¼"	1 ½"
12"	3"	3 ¾"	1 ½"
14"	3 ⅞"	4"	1 ½"
16"	3 ¾"	4 ½"	1 ½"
18"	3 ⅝"	4 ⅝"	1 ½"

* Average of one hole or equivalent smaller holes per 3 lineal ft.

Manufacture

PARA. 124c. “NO. 2” STRUCTURAL

Characteristics permitted and limiting provisions shall be:

- Checks** seasoning checks not limited. Through checks at ends are limited as splits.
- Knots** well spaced knots of any quality are permitted in sizes (see Para. 320b) not to exceed the following or equivalent displacement:

Nominal Width	At Edge Wide Face	Centreline Wide Face	Holes* (Any Cause)
2"	5/8"	5/8"	5/8"
3"	7/8"	7/8"	7/8"
4"	1 1/4"	2"	1 1/4"
5"	1 5/8"	2 3/8"	1 3/8"
6"	1 7/8"	2 7/8"	1 1/2"
8"	2 1/2"	3 1/2"	2"
10"	3 1/4"	4 1/4"	2 1/2"
12"	3 3/4"	4 3/4"	3"
14"	4 1/8"	5 1/4"	3 1/2"
16"	4 1/4"	5 3/4"	4"
18"	4 3/8"	5 7/8"	4 1/2"

* Average of one hole or equivalent smaller holes per 2 lineal ft.

- Manufacture** Standard “F”. See Para. 722f.
- Pitch & Pitch Streaks** not limited.
- Pockets - pitch or bark** not limited.
- Rate of Growth** limited to medium grain in Douglas fir and Western larch only. See Para. 350a.
- Skips** hit & miss, with a maximum of 5% of the pieces containing hit or miss or heavy skip 2' or less in length. See Paras. 720e, 720f, and 720g.
- Splits** equal in length to 1-1/2 times the width of the piece.
- Shake** if through at ends, limited as splits. Away from ends through shakes up to 2' long, well separated. If not through, single shakes shall not exceed 4' 3" long or 1/4 the length, whichever is greater. **In pieces less than 8' long, surface shake 1/2 the length, through shake 1/4 the length.**
- Slope of Grain** 1 in 8.
- Stain** stained sapwood. Firm heart stain or firm red heart not limited.
- Unsound Wood (excluding white speck)**
not permitted in thicknesses over nominal 2". In 2" lumber, small spots or streaks of firm honeycomb or peck are limited to 1/6 the width. Any other unsound wood is ~~limited to a spot 1/12 the width on the wide face; not to exceed maximum wane on the narrow face, and 2" in length or equivalent smaller.~~ **limited to a spot 1/12 the nominal width and 2" in length or equivalent smaller. This decay can occur on any face provided the decay does not destroy the nailing edge.**
- Wane** 1/3 the thickness and 1/3 the width full length, or equivalent on each face, provided that wane does not exceed 2/3 the thickness or 1/2 the width for up to 1/4 the length. See Para. 750.
- Warp** light. See Para. 752.
- White Speck** firm, 1/3 the face or equivalent.

PARA. 124d. “NO. 3” STRUCTURAL

Characteristics permitted and limiting provisions shall be:

- Checks** seasoning checks not limited. Through checks at ends are limited as splits.
- Knots** well spaced knots of any quality are permitted in the following sizes (see Para. 320b) or their equivalent displacement:

Nominal Width	At Edge Wide Face	Centreline Wide Face	Holes* (Any Cause)
2"	¾"	¾"	¾"
3"	1 ¼"	1 ¼"	1 ¼"
4"	1 ¾"	2 ½"	1 ¾"
5"	2 ¼"	3"	1 ⅞"
6"	2 ¾"	3 ¾"	2"
8"	3 ½"	4 ½"	2 ½"
10"	4 ½"	5 ½"	3"
12"	5 ½"	6 ½"	3 ½"
14"	6"	7"	4"
16"	6 ¾"	8"	4 ½"
18"	6 ½"	8 ¼"	5"

* Average of one hole or equivalent smaller holes per 1 lineal ft.

Manufacture ...

PARA. 715 HEAT-TREATED (HT)

Lumber or other wood products that has been heated in a ~~closed~~ chamber, with or without moisture content reduction, until it achieves a minimum core temperature of 56°C for a minimum of 30 minutes.

~~**PARA. 717 — KILN DRIED LUMBER**~~

~~Lumber dried in a closed chamber in which the required moisture content is obtained by artificial heat and/or humidity control.~~

PARA. 725 MOISTURE CONTENT TERMINOLOGY

- a) **Green Lumber** - lumber having a moisture content of over 19%.
- b) **Dry Lumber** - lumber which has been dried to a moisture content of 19% or less. Dry lumber can be achieved by the following processes:
 - i) **Air-dried Lumber** - lumber dried by exposure to the atmosphere, in the open or under cover, without artificial heat.
 - ii) **Kiln-dried Lumber** - lumber dried in a chamber in which the required moisture content is obtained by artificial heat and/or humidity control.

NGR INTERPRETATIONS

1.17 UNSOUND WOOD

In NO. 2 and Standard, white speck “**1/3 face or equivalent**” is a volume restriction. When white speck appears, it is limited to the following or equivalent area:

- a) a maximum of 1/3 the length for the full width of the face; or
- b) a maximum of 1/3 the width of the face for the full length.

In NO. 2 and Standard, firm honeycomb or peck on the narrow face that occupies the entire thickness shall not penetrate more than 1/6 the width of the wide face and such peck **is restricted to not longer than twice the knot hole size in length and** must not destroy the nailing edge.

In NO. 3, Utility, and Stud, “**spots or streaks**” of soft decay occurring on one face shall not be limited in length; if through two faces, each streak is limited to 1/6 the length of the piece. Measurement shall be taken in the through portion of the streak.