

**EASTERN
WHITE PINE
BOARD GRADES**



6.0 EASTERN WHITE PINE

Eastern White Pine grade descriptions set forth the limiting characteristics that may occur in the lumber of each grade. Therefore, the rules describe the poorest pieces in a grade. All, or nearly all, of the permissible characteristics of the grade are never present in maximum size or number in any piece. Any piece with an unusual combination of characteristics which seriously affect normal serviceability is excluded from the grade.

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Interpretations for Eastern White Pine grade rules are available from NELMA. Ask for publication titled, "General Definitions and Instructions for Grading Eastern White Pine Boards. This document is also available online at www.nelma.org.

6.1 SELECTS

There are two select grades: C Select and D Select which may be combined into a single marketing group, D & Btr. Select.

All selects are graded from the best face.

6.1.1 C Select (C Sel. — abbreviation)

This is the highest NELMA Pine grade. While some of the pieces are clear, most pieces have minor characteristics which do not affect their high appearance or quality. Material of this grade is best used for natural or stained finish, fine woodworking or interior trim.

The reverse face of C Select only permits the allowable characteristics of the grade face of D Select, except no 5% cut is allowed.

All thicknesses.

Widths — 3" and wider.

Lengths — 6' to 16'. Percentage of 6' to 9' lumber will be limited to 20% of a shipment with a maximum of 5% 6' based on board foot content.

Characteristics and Limiting Provisions:

Bite — 1/64" in 2% of the pieces.

Checks — Barely perceptible on face and back.
 Knots — One sound, tight, pin knot (max. 1/2") per 4 surface feet. In an occasional piece, one small, sound, tight, red knot (maximum 3/4") is permitted. This small knot is counted as two pin knots when determining the total number of pin knots allowed.
 Knife Marks — Slight.
 Machine Burn — None.
 Mismatch — Very light.
 Offset — 1/64" in 2% of the pieces.
 Pitch — Medium 1/3 the face in a clear board.
 Pockets — Very small, well-scattered pockets permitted; maximum of one per four surface feet. See para. 734.0.
 Raised Grain — Very Light.
 Shake — Barely perceptible on face and back.
 Skip — On reverse face or one edge, 1 light 2' skip per each 8' of length on not more than 10% of the pieces.
 Stain — Medium (blue or coffee), not to exceed 1/3 the face surface area in a clear board, equivalent larger area of light stain; less if present in combination with other characteristics.
 Torn Grain — None.
 Wane — 1/2 the thickness, 1/8 the width, 1/4 the length on one edge on reverse face only.
 Warp — Very light. See para, 752.0.

6.1.2 D Select (D Sel. — abbreviation)

The last of the select grades, D Select, takes its appearance from both the select and the common grades. Its characteristics are more pronounced than C Select, but are well spaced giving more clear material.

The reverse face of D Select shall permit sound characteristics typical of Standard.

All thicknesses.

Widths — 3" and wider.

Lengths — 6' to 16'. Percentage of 6' to 9' lumber will be limited to 20% of a shipment with a maximum of 5% 6' based on board foot content.

Characteristics and Limiting Provisions:

Bite — 1/64" in 2% of the pieces.

Checks — Barely perceptible on face. Medium surface checks on back. See para. 704.0.

Knots — One sound, tight pin (maximum 1/2") knot per surface foot. In an occasional piece, one small (maximum 3/4"), sound, tight knot is permitted. This small knot is counted as two pin knots when determining the total number of pin knots allowed.

Knife Marks — Slight.

Machine Burn — One per board.

Mismatch — Very light.

Offset — 1/16" in 2% of the pieces.

Pitch — Medium 2/3 the face in a clear board. One small streak of heavy pitch. See para. 730.0.

Pockets — Very small, well-scattered pockets permitted; maximum of one per 2 surface feet. See para. 734.0.

Raised Grain — Very Light.

Shake — Barely perceptible on face, light surface shake not over 1/4 the length on back.

Skip — Hit and miss on reverse face or one edge, on not more than 20% of the pieces.

Splits — Very short (1/2 the width).

Stain — Blue or Coffee: Medium, not to exceed 3/4 of the face surface area in a clear board, equivalent larger area of light stain, less if present in combination with other characteristics; OR, Heavy, up to 5% of the face surface area on an otherwise clear board, limited to 15% of a shipment based on board footage.

Torn Grain — 1/64" deep.

Wane — On reverse face; 1/2 the thickness, 1/4 the width, 1/4 the length, on one edge or equivalent on two edges.

Warp — Very light. See para. 752.0.

5% Cut for Defect — Defect must be located either within 5% of length on the end or in the middle portion of the piece leaving at least three feet usable lumber at each end. The 5% cut shall be a cross cut. Pieces 6' through 9' must be usable full length without making a cut for defect. The

5% cut is counted as four pin knots when determining the total number of pin knots allowed.

6.2 COMMONS

All boards are graded from the better face. There are four Eastern White Pine Common grades: Finish, Premium, Standard and Industrial. The grades of Finish and Premium may be grouped together as Premium & Btr.

All thicknesses.

Widths — 3" and wider.

Lengths — 6' to 16'.

6.2.1 Finish (Fin. — abbreviation)

This is a fine appearance knotty grade calling for sound, tight knots. Material of this grade can be finished to take advantage of the natural highlights of the piece or to give a fine smooth painted surface.

The reverse face of Finish shall permit sound characteristics typical of Standard.

Characteristics and Limiting Provisions:

Bite — 1/64" in 2% of the pieces.

Checks — Small. See para. 704.0.

Knots — Sound and tight, limited as follows:

Nominal Width	Red	Black
4"	1-1/4"	5/8"
6"	1-1/2"	3/4"
8"	2"	3/4"
10"	2-1/4"	7/8"
12" and wider	2-1/2"	7/8"

Pieces containing black knots must be in keeping with the general quality and appearance of the grade.

Knot Holes — Two sloughed out knots on reverse face not exceeding 1/2 the thickness or equivalent.

Knife Marks — Slight.

Machine Burn — None.
Mismatch — Very light.
Offset — 1/32" in 2% of the pieces.
Pitch — Medium.
Pith — 1/10 the length.
Pockets — Very small, well-scattered pockets permitted. See para. 734.0.
Raised Grain — Very Light.
Seams — Partially surrounding a knot are permitted up to a maximum size of one 1/8" x 1/2" per board limited to 10% of a shipment.
Shake — Surface, light; not to exceed 1/10 the length on the face, 1/4 the length on back.
Skip — Hit and miss on reverse face or light skip on one edge not exceeding 1/4 the length. Limited to 10% of the pieces.
Splits — Very short (1/2 of the width).
Stain — Medium (blue or coffee), not to exceed 1/2 the face surface area.
Torn Grain — 1/64" deep not over 5% of the face.
Wane — On reverse face; 1/2 the thickness, 1/4 the width, 1/4 the length, on one edge only.
Warp — Light. See para. 752.0.

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6.2.2 Premium (Prem. — abbreviation)

This is a good appearance knotty grade. It is used in the same area as Finish where larger and more numerous characteristics are desired.

Reverse face of Premium shall permit sound characteristics of Standard.

Characteristics and Limiting Provisions:

Bite — 1/64"; 2% of the pieces may have 1/32".
Checks — Medium. See para. 704.0
Decay — Incipient Decay Allowed: Face, 5%;
Back, 10%

Knots — Generally sound and tight, limited as follows:

Nominal Width	Red	Black	Holes
4"	2"	3/4"	3/8"
6"	2-1/2"	1"	1/2"
8"	3"	1-1/4"	3/4"
10"	3-1/4"	1-1/2"	7/8"
12" and wider	3-3/4"	1-1/2"	1"

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Black knots of maximum size are accepted in pieces of high quality and are limited to one in pieces 6' through 9' and two in 10' and longer or equivalent smaller.

Knot Holes — One 1" hole in 12" board or equivalent smaller; proportionately smaller for narrower widths.

Knife Marks — Slight.

Machine Burn — One per board.

Mismatch — Very light.

Offset — 1/64"; in 2% of the pieces may have 1/16".

Pith — Any amount.

Pitch — Medium.

Pockets — Small, well-scattered pockets permitted.

See para. 734.0.

Raised Grain — Light.

Shake — Surface light; not to exceed 1/4 the length on face and back. Through shake, barely perceptible.

Seams — Partially surrounding a knot are permitted up to a maximum size of one square inch (i.e., 1/4" x 4", 1/3" x 3", 1/2" x 2"). One maximum sized seam or equivalent is permitted per 8 surface feet.

Skip — Hit and miss on reverse face or one edge on not more than 20% of the pieces.

Splits — Short (not exceeding width).

Stain — Medium (blue or coffee).

Torn Grain — 1/16" deep, not over 10% of the face.

Wane — On reverse face; 1/2 the thickness, 1/4 the width, 1/4 the length on one edge or equivalent on 2 edges.

Warp — Medium. See para. 752.0.

Insect Holes — One medium insect hole permitted for each 6 linear feet. Pin holes permitted up to 10% of the surface area. See para. 716.0.

6.2.3 Standard (Stand. — abbreviation)

For Appearance grade and Construction grade see para 6.3 and 6.3.1.

This is a highly serviceable grade used chiefly for construction. It may be used where a coarser rustic decorative appearance is desired.

The reverse face of Standard permits the allowable characteristics of Industrial.



Characteristics and Limiting Provisions:

Bite — 1/64"; 2% of the pieces may have 1/16".

Checks — Surface and through, 1/4 length to maximum of 3'.

Decay — Incipient Decay Allowed: Face, 10%; Back 30%. Advanced Decay Allowed: Face, 1%; Back 10%. When found in combination on the same face, neither incipient decay nor advanced decay will be allowed in its maximum amount. Incipient decay will be reduced proportionately to the amount of advanced decay present (i.e., Back, If 5% advanced decay is present, no more than 15% incipient decay will be allowed).

Fixed Knots — Fixed knots are allowed up to the size of the maximum hole allowed or equivalent smaller, limited to one per piece. See para. 718.0.

Knots — Any quality limited as follows:

Nominal Width	Red	Black	Holes
4"	2-3/8"	1-3/4"	1"
6"	3-3/4"	2-3/4"	1-1/2"
8"	4-7/8"	3-5/8"	2"
10"	6"	4"	2"
12" and wider	6"	4"	2"

Knot Holes — One quarter the width to a maximum of 2". One maximum size hole or equivalent smaller with 8 linear feet between maximum sized holes.

Machine Burn — No limit.

Mismatch — Very light.

Offset — 1/64"; 2% of the pieces may have 1/8".

Pitch — Heavy.

Pith — Any amount.

Pockets — Large. See para. 734.0.

Raised Grain — Light.

Shake — Through, not to exceed 1/3 the length.

Shake extending from one wide face through the edge to the other wide face is limited as edge break listed under splits.

Seams — Any not seriously weakening the pieces, limited to 1/6 the length.

Skip — Hit and miss on reverse faces; one edge may be 1/16" scant full length or 1/8" scant for half the length on not more than 20% of the pieces.

Splits — Medium (twice width, not to exceed 1/6 the length). Edge cracks or breaks due to handling or drying permitted up to 1/3 the width. The length of the break is limited to the width of the board.

Stain — Heavy.

Torn Grain — 1/16" deep.

Wane — On reverse face; 2/3 the thickness, 1/4 the width, 1/2 the length on one edge, or equivalent on two edges.

Warp — Heavy. See para. 752.0.

Wavy Dressing — Light.

Insect Holes — One medium permitted for each 2 linear feet. Pin holes permitted up to 50% of the surface area. See Para. 716.0.

6.2.4 Industrial (Ind. — abbreviation)

This is the lowest common board grade. It admits large characteristics in any combination as long as the piece is usable full length. This material is generally used in rough construction where strength and appearance are not of primary importance.

Characteristics and Limiting Provisions:

Characteristics admitted without limits: Sound and unsound knots, shake, checks, pitch, pitch pockets, hit and miss dressing, pith, stain, warp, knot holes, bark and pitch, seams, and insect holes. Any characteristics which, by themselves or in combination, seriously weaken the piece for reasonable handling will not be permitted.

Decay — Advanced Decay Allowed: Not to exceed $\frac{1}{2}$ the surface area. Must not destroy the nailing edges.

Skip — Hit or miss or a heavy skip not exceeding $\frac{1}{4}$ the length.

Splits — Not to exceed $\frac{1}{4}$ the length.

Wane — $\frac{3}{4}$ the thickness, $\frac{1}{2}$ the width, $\frac{1}{2}$ the length. Full width or thickness wane up to $\frac{1}{2}$ " scant is permitted for $\frac{1}{4}$ the length.

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6.3 APPEARANCE GRADE

Appearance grade will be taken from the high end of Standard Grade (see para. 6.2.3) and it will have a sound Standard back. The following are the limitations:

Fixed knots — Not allowed — Treated as hole.

Checks — Light, up to 2' in length, if tight.

Decay — Incipient Decay Allowed: Face, 5%; Back, 10%.

Knot holes — One 1" in a 12" board or equivalent smaller. Proportionately smaller for narrower widths.

Pockets — Maximum 2 square inches, none loose or open.

Shake — Light, up to 2' in length, if tight.

Seams — Maximum 2 square inches, none loose or open.

Splits — Short, no greater than width of board.

Edge breaks — Maximum $\frac{1}{6}$ width.

Stain — Medium, blue or brown.

Insect holes — Grade as knot holes, count toward knot hole limit.

Reverse face — Sound Standard.

Any characteristics permitted in NELMA Standard Grade which are not addressed above are to be graded as in NELMA Standard Grade.

6.3.1 CONSTRUCTION

The Portion of the grade of Standard (Para 6.2.3) that does not make Appearance Grade. All pieces must make Standard Grade.



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