



ALL SPECIES

BOARDS SELECTS AND COMMONS

SELECTS Rough or Surfaced All Widths & All Thicknesses

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112. Grade descriptions for Selects are based on a piece of S4S 1" x 8" x 12' long. The number and extent of characteristics in larger or smaller pieces may vary in proportion to the size of the piece. Characteristics appearing on the edges of S2S or rough stock widths which will be removed in surfacing are not given the same consideration as characteristics in S4S lumber. In random width shipments sold on board rule scale, the grade will be determined by the full width of the piece. For Standard Sizes, see Para. 820e.

112a. In Select grades, all pieces are graded from the better side or face. The reverse side may be somewhat lower in quality with more restrictions placed on the back of the higher grades.

There are three grades of Selects: "**B & BETTER - 1 AND 2 CLEAR**" (SUPREME - WW PINE), "**C SELECT**" (CHOICE - WW PINE) and "**D SELECT**" (QUALITY - WW PINE).

112b. B & BETTER - 1 AND 2 CLEAR (SUPREME - WWPINE)

Lumber of this grade may be ordered when the ultimate in fine appearance is desired. This is the highest grade of Select Lumber produced and many pieces are absolutely clear. Some pieces may have a few minor characteristics which do not detract from their appearance or high quality.

Characteristics and limiting provisions are:

- Checks - seasoning, small 1 on each end, or 3 or 4 if away from ends.
- Crook - as shown in Para. 810a.
- Cup - very light.
- Skip - very light on one edge, light on back.
- Stained Wood - light in an occasional piece over not more than 10% of the face.
- Torn Grain - very light, not more than 3" long.
- Twist - 7/4 and thinner, 1/2 of very light. 8/4 and thicker, 1/4 of very light. See Para. 810d.





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- Wane - on reverse side only, 1/4 the thickness, 1/6 the length in an occasional piece.
- Knots - 2 sound, tight pin, or slight traces of pitch, or a very small pocket, or equivalent.

112c. C SELECT (CHOICE - WWPINE)

Lumber of this grade is recommended for all finishing uses where fine appearance is essential. Because of its appearance and usability ranks only slightly less than B & Better - 1 and 2 Clear; it is one of the most sought after products from the clear portion of the log. It is widely used for high quality interior trim and cabinet work with natural, stain or enamel finishes.

Characteristics and limiting provisions are:

- Checks - seasoning, small, well scattered on the surface.
- Crook - as shown in Para. 810a.
- Cup - very light.
- Skip - light on one edge, 1 medium, or 2 light skips on the back.
- Stained Wood - medium in an occasional piece covering 1/3 the face, or a greater area of lighter stain when not in combination with other characteristics.
- Torn or Raised Grain - very light.
- Twist - 7/4 and thinner, 1/2 of very light. 8/4 and thicker, 1/4 of very light. See Para. 810d.
- Wane - on reverse side, 1/2 the thickness, 1/8 the width, 1/4 the length in an occasional piece.
- With the above, one of the following characteristics:
- Pitch - light over not more than 1/2 the face.
- Pitch Streak - 1 small.
- Pockets - 2 very small.
- Knots - 2 small, sound tight.
- Equivalent characteristics no more damaging than any of the above.

112d. D SELECT (QUALITY - WWPINE)

Lumber of this grade has many of the fine appearance features of C Select grade. Although generally less restrictive than C Select, D Select is suitable where the requirements for finishing are less exacting.





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The grade is between the higher finishing grades and the Board grades as many pieces have a finish appearance on one side, the reverse side showing larger or more numerous characteristics.

Characteristics and limiting provisions are:

- Checks - seasoning - small, scattered; medium on back.
- Crook - as shown in Para. 810a.
- Cup - very light.
- Skip - 1 very light on face; hit and miss on back; one edge may be $\frac{1}{16}$ " scant for 1/2 the length in an occasional piece.
- Split - short on one end or equivalent.
- Stained Wood - medium, over entire face if otherwise high quality.
- Torn or Raised Grain - light in scattered spots.
- Twist - 7/4 and thinner, very light. 8/4 and thicker, 1/2 of very light. See Para. 810d.
- Wane - on reverse side, 3/4 the thickness, 1/4 the width, 1/4 the length.

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With the above, **one** of the following characteristics:

- Pitch - medium, over not more than 2/3 of face, less if heavy.
- Pitch Streak - 1 medium.
- Pockets - 4 small.
- Knots - 4 small, fixed.

Equivalent characteristics no more damaging than any of the above.

One 4" cutout is permitted in pieces of otherwise high appearance. Cutting must be directly on an end or more than 2' from an end. Cutouts are restricted to pieces 12' and longer and 10% of an item.

112e. STAINED SELECTS

Stained Selects are graded D Select or better in all characteristics except stain, admitting all degrees of stain.





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COMMONS Rough or Surfaced All Widths, All Thicknesses

113. The five Common grades are: "**1 COMMON** (COLONIAL - WWPINE)", "**2 COMMON** (STERLING - WWPINE)", "**3 COMMON** (STANDARD - WWPINE)", "**4 COMMON** (UTILITY - WWPINE)" & "**5 COMMON** (INDUSTRIAL - WWPINE)".

Certain characteristics found in Board lumber are difficult to evaluate to an exact degree because of the nature of the portion of the log from which Boards are produced. Some limiting characteristics must be evaluated by applying sound judgement and all characteristics must be considered in determining the grade. Any piece judged to contain a serious combination of the listed characteristics, even though some of the characteristics may not be limiting by themselves, is excluded from the grade. Likewise, an otherwise "high line" piece may be placed in a grade even though one or two of its characteristics may slightly exceed the limitation described in the rules. Such pieces will be of exceptional quality otherwise and might grade one or more grades higher, except for such characteristics. Therefore, each individual piece is considered in its entirety in determining the grade.

When characteristics are listed as applying to a specific size piece (such as 1" x 8" x 12') the number and extent of the same characteristics in larger and smaller pieces may vary in proportion to the size of the piece.

Knot descriptions are given in Para. 718. Because most Board lumber is produced from the inner portion of the log, the size of a knot may not be the determining factor in establishing a particular grade. Therefore, some pieces of a lower grade may have smaller knots than some pieces of a higher grade. Knot sizes cannot be satisfactorily established to an exact degree for any particular grade of Board lumber. It is generally the character or condition of the knot and not the size that determines the grade of the piece. Spike knots are permitted in all grades of Board lumber, providing the knot or knots have no more effect than the other knots permitted in an individual grade. For Standard Sizes, see Para. 820e.



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113a. 1 COMMON (COLONIAL - WWPINE)

Lumber of this grade, while not usually carried in stock in large quantities, may be ordered when the ultimate in fine appearance of knotty material is required. This grade includes all sound, tight-knotted stock with the size and character of the knot the determining factor of the grade.

Characteristics and limiting provisions are:

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- Checks - seasoning, 4 small surface in a 1" x 8" x 12'.
- Crook - as shown in Para. 810b.
- Cup - very light.
- Heart Pith - firm, not more than 1/4" wide, 1/6 the length.
- Pitch - light over not more than 1/8 the area.
- Pockets - 2 very small, dry, well scattered in a 1" x 8" x 12'.
- Skips - 3 very light on one edge or 2 light on back in a 1" x 8" x 12'.
- Splits - very short, limited to 1 on each end.
- Stain - light over not more than 1/3 of face.
- Torn or Raised Grain - very light.
- Twist - 7/4 & thinner, very light, 8/4 & thicker, 1/2 of very light. See Para. 810d.
- Wane - on back, 1/2 thickness, 1/8 width, 1/4 length in an occasional piece.
- Knots - sound, tight and smooth red limited as follows:

Face Width	Knot Size
2"	5/8"
3"	7/8"
4"	1 1/4"
6"	1 3/4"
8"	2 1/4"
10"	2 1/2"
12"	2 3/4"
14" & wider	3"

The knot sizes listed above will generally be the maximum size found in this grade. However, there may be pieces of otherwise exceptional quality which may contain slightly larger knots than those shown.

Black knots must be smooth, sound, tight and small.

An occasional piece may have one angling 3/8" hole (slough knot) on the edge, extending into the wide face not more than 1/2" and into not more than 1/2 the thickness.





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113b. 2 COMMON (STERLING - WWPINE)

Lumber of this grade is intended primarily for use in housing and light construction where it is exposed such as in panelling, shelving and other uses where a knotty type of lumber with fine appearance is required. Since knots can easily be sealed off for painting, this also is an excellent grade for siding, cornice, soffits, fascia and other exterior uses.

Characteristics and limiting provisions are:

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- Checks - seasoning, 2 medium or equivalent smaller in a 1" x 8" x 12'.
 - Roller checks - light on back, not more than 1/4 the length.
 - Crook - as shown in Para. 810b.
 - Cup - light.
 - Heart Pith - firm, not more than 1/2" wide, 1/2 the length.
 - Pin Holes - 12 scattered in a 1" x 8" x 12'.
 - Pitch - streaks and patches of light to medium covering 1/2 of face or 2 very small streaks of heavy pitch.
 - Pockets - 3 small, dry, well scattered, or equivalent smaller in a 1" x 8" x 12'.
 - Shake - light, not over 1/6 in length.
 - Skip - medium on back, limited to 1/4 of length, medium on edge, limited to 1/3 of length.
 - Splits - short, limited to 1 on each end.
 - Stained Wood - medium, over entire face on pieces of otherwise high quality.
 - Torn or Raised Grain - light.
 - Twist - 7/4 and thinner, very light . 8/4 and thicker, 1/2 of very light. See Para. 810d.
 - Wane - on back, 1/2 thickness, 1/6 width, 1/3 length or equivalent in an occasional piece.

The knot sizes listed below will generally be the maximum size found in this grade. However, there may be pieces of exceptional quality otherwise, which may contain slightly larger knots than those shown.

An occasional piece may have the following:

- 2 small fixed knots **or** one angling 3/4" hole (slough knot) on the edge extending into the wide face not more than 1" and not over 1/2 the thickness of the piece.

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Knots are limited as follows:

Face Width	Red Knots Sound & Tight	Black Knots Sound & Tight
2"	1"	$\frac{3}{8}$ "
3"	$1\frac{1}{4}$ "	$\frac{1}{2}$ "
4"	2"	$\frac{3}{4}$ "
6"	$2\frac{1}{2}$ "	1"
8"	3"	$1\frac{1}{4}$ "
10"	$3\frac{1}{4}$ "	$1\frac{3}{8}$ "
12"	$3\frac{3}{4}$ "	$1\frac{1}{2}$ "
14"& wider	4"	$1\frac{3}{4}$ "

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Black knots of maximum size in this grade are accepted in pieces of high quality and limited to 1 in the 16' and longer lengths, and proportionately smaller in the shorter lengths.

Pieces containing numerous smaller black knots shall be of quality in keeping with the requirements of this grade.

113c. 3 COMMON (STANDARD - WWPINE)

Lumber of this grade is widely used for a large range of building purposes where appearance and strength are both important. With characteristics limited to assure a high degree of serviceability, this grade is often used for shelving, panelling and siding and is especially suited for fences, boxes, crating, sheathing and many industrial uses.

Characteristics and limiting provisions are:

- Checks - seasoning, medium.
- Roller checks - 1, 3' light on face; light to medium $\frac{2}{3}$ length on back.
- Crook - as shown in Para. 810b.
- Cup - medium.
- Pin or Small Holes - 30 per square foot or 4 small holes in a 1" x 8" x 12'.
- Pitch - heavy over $\frac{1}{2}$ the area or 2 small streaks of massed pitch.
- Pockets - medium, well scattered.
- Shake - light to medium, scattered full length in otherwise 2 Common type.
- Skip - One medium on face, hit & miss on back for $\frac{2}{3}$ the length. One edge may be $\frac{1}{8}$ " scant for $\frac{1}{2}$ the length or $\frac{1}{16}$ " scant full length.



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- Split - 1/6 the length.
- Stained Wood - medium to heavy over the entire face.
- Torn Grain - medium.
- Twist - 7/4 & thinner, light. 8/4 & thicker, 1/2 of light.
See Para. 810d.
- Unsound Wood - similar to firm white speck;
limited to 1/8 the area.
- Wane - on back, 2/3 thickness, 1/4 width, 1/2 length
or equivalent in an occasional piece.

The knot sizes listed below will generally be the maximum size found in this grade, however, there may be pieces of exceptional quality otherwise which may contain slightly larger knots than those shown.

Knots are limited as follows:

Face Width	Red Knots Sound & Tight	Unsound or Loose Knot Knot Holes
2"	1 ³ / ₁₆ "	3/8"
3"	1 ¹ / ₂ "	5/8"
4"	2 ¹ / ₂ "	3/4"
6"	3"	1 ¹ / ₄ "
8"	3 ¹ / ₂ "	1 ¹ / ₂ "
10"	4"	1 ³ / ₄ "
12"	4 ¹ / ₂ "	2 ¹ / ₄ "
14" & wider	5"	2 ¹ / ₂ "

Black knots may be 2/3 size of allowable red knots, 2 maximum in each 12' of length or equivalent smaller tight black knots.

Fixed knots may be equal to knot hole in size and are limited to 2 per 12' of length when not in serious combinations with other characteristics.

Only one maximum size knot hole is permitted in any one piece, but two equivalent smaller knot holes may be permitted if well spaced and the piece is otherwise of high quality.





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113d. 4 COMMON (UTILITY - WWPINE)

Lumber of this grade is more widely used than other grades for general construction purposes. Boards of this grade are used for sub-floors, roof and wall sheathing, concrete forms, low cost fencing, crating and similar types of construction. It is a popular grade in general construction and industry use. Although appearance is given consideration, pieces are graded chiefly for serviceability as they are seldom used in exposed construction.

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Characteristics and limiting provisions are:

Checks - seasoning, large. Roller checks medium to heavy, full length on back, light to medium 2/3 length on face.

Crook - as shown in Para. 810b.

Cup - heavy.

Pin Holes or

Small Holes - not limited.

Knots are limited as follows:

Face Width	Fixed Knots Firm & Tight Knots	Loose Knots Knot Holes
2"	1 ⁵ / ₁₆ "	³ / ₄ "
3"	1 ³ / ₄ "	1"
4"	3"	1 ¹ / ₂ "
6"	3 ¹ / ₂ "	2"
8"	2/3 width	2 ¹ / ₂ "
10"	2/3 width	3"
12"	2/3 width	3 ¹ / ₂ "
14" & wider	2/3 width	4"

Knot holes and/or loose knots of maximum size are limited to three for each 12' of length.

Pitch - heavy streaks and patches of massed pitch over 1/2 area in otherwise high quality pieces.

Pockets - large.

Shake - medium to heavy full length.

Skip - hit & miss on face, ¹/₁₆" scant full length if surfaced one side. One edge may be ¹/₄" scant for 1/2 length or ¹/₈" scant full length.

Split - 1/3 length.





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- Stained Wood - heavy.
Torn Grain - heavy.
Twist - 7/4 and thinner, medium. 8/4 and thicker,
1/2 of medium. See Para. 810d.
- Unsound Wood
or Honeycomb - not firm, scattered spots over 1/4 the face.
Wane - 1/2 thickness, 1/8 width, 1/6 length on face;
heavy on back, but equivalent to knot holes if
through thickness.
- White Speck &
Honeycomb - firm.

113e. 5 COMMON (INDUSTRIAL - WWPINE)

Lumber of this grade is intended for use in construction where lumber of a higher grade is not needed. This grade permits characteristics such as stain, large knots, very large holes, unsound wood, massed pitch, heavy shake, splits and wane in varying stages or degrees singly or in combinations. Many pieces in this grade are only slightly lower than the 4 Common (Utility - WWPine) grade while others will be at the opposite end of the grade level. Although 5 Common is the lowest Common Board grade, it is suitable for uses in economical construction where appearance and strength are not basic requirements.





ALL SPECIES

BOARDS
SHEATHING AND FORM LUMBER
Rough or Surfaced
Shiplapped or Tongued & Grooved
Under 2" in Thickness, 2" & Wider

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114. Boards are graded from the face or better side. The reverse side may have characteristics approximately one grade lower than the face.

There are five grades of Boards: "**Select Merchantable**," "**Construction**," "**Standard**," "**Utility**" and "**Economy**."

114a. "SELECT MERCHANTABLE" BOARDS

Pieces are graded primarily for serviceability, but are usually of fine appearance.

Characteristics and limiting provisions are:

- Checks - medium.
- Heart Stain - firm.
- Pin Holes - limited.
- Pitch Streaks - small.
- Pockets - medium, scattered.
- Roller Checks - totalling 1/2 length on reverse face permitted if tight, none through.
- Sap Stain - medium.
- Skips - very light on face; occasional light on edges and reverse side.
- Splits - short.
- Tongue or Lap - 1/16" narrow.
- Knots - sound tight and well scattered, approximately:

Face Width	Knot Size
2"	1"
3"	1 ¹ / ₄ "
4"	1 ¹ / ₂ "
6"	2"
8"	2 ¹ / ₂ "
10"	3"
12" & wider	3 ¹ / ₂ "

- Spike Knots - permitted if judged equivalent in effect to other knots.





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Slough Knot - one 1" not through per 12' length.
 Torn or Raised Grain - medium.
 Warp - light.
 S1S Boards may have tolerance of $\frac{1}{32}$ " over or under.

114b. "CONSTRUCTION" BOARDS

Characteristics and limiting provisions are:

Checks - not limited.
 Knots - approximately:

Face Width	Firm & Tight	Unsound or Not Firmly Fixed Knots	Holes*
2"	1"	$\frac{1}{2}$ "	$\frac{1}{2}$ "
3"	$\frac{1}{4}$ "	$\frac{5}{8}$ "	$\frac{5}{8}$ "
4"	$\frac{3}{4}$ "	$\frac{7}{8}$ "	$\frac{7}{8}$ "
6"	2"	1"	1"
8"	$2\frac{1}{2}$ "	$1\frac{1}{4}$ "	$1\frac{1}{4}$ "
10"	3"	$1\frac{1}{2}$ "	$1\frac{1}{4}$ "
12"	$3\frac{1}{2}$ "	$1\frac{3}{4}$ "	$1\frac{1}{4}$ "
Over 12"	4"	2"	$1\frac{1}{4}$ "

* Two holes of maximum size or equivalent smaller are permitted per 12 lin. feet.



Spike Knots - permitted if judged to be equivalent in effect to other knots.
 Pin Holes - not limited.
 Pitch Streaks - not limited.
 Pockets - medium.
 Skips - light on face; medium on edges and reverse side.
 Splits - short.
 Stained Wood - not limited.
 Tongue or Lap - $\frac{1}{16}$ " narrow.
 Torn or Raised Grain - medium.
 Wane - $\frac{1}{2}$ the thickness, $\frac{1}{8}$ the width or equivalent.
 Warp - light.
 S1S Boards may have tolerance of $\frac{1}{32}$ " over or under.



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114c. "STANDARD" BOARDS

Characteristics and limiting provisions are:

- Checks - not limited.
- Knots - approximately:

Face Width	Firm & Tight	Unsound or Loose Knots or Holes	
2"	1 ¹ / ₄ "	3/4"	} 2 holes, or their equivalent smaller, permitted for each 12' of length
3"	1 ¹ / ₂ "	1"	
4"	2 ¹ / ₂ "	1 ¹ / ₄ "	
6"	3"	1 ¹ / ₂ "	
8"	3 ¹ / ₂ "	1 ³ / ₄ "	
10"	4"	2"	
12"	4 ¹ / ₂ "	2 ¹ / ₄ "	
Over 12"	5"	2 ¹ / ₂ "	

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- Spike Knots - permitted if judged to be equivalent in effect to other knots.
 - Pin Holes - not limited.
 - Pitch Streaks - not limited.
 - Pockets - not limited.
 - Shake - tight through, short separate shakes permitted full length or equivalent roller checks.
 - Skips - medium on face, hit and miss on edges and reverse side.
 - Splits - 1/6 length.
 - Stained Wood - not limited.
 - Tongue or Lap - 1/8" narrow.
 - Torn or Raised Grain - heavy.
 - Wane - 1/2 the thickness, 1/6 the width or equivalent.
 - Warp - medium.
 - White Specks - 1/3 face area.
- S1S Boards may have tolerance of 1/32" over or under.

114d. "UTILITY" BOARDS

Characteristics and limiting provisions are:

- Checks - not limited.
- Honeycomb - firm.
- Pin Holes - not limited.
- Pitch Streaks - not limited.
- Pockets - not limited.
- Shake - not serious.

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Knots:

Face Width	Firm & Tight	Unsound &/or Loose Knots & Holes *
2"	1 ¹ / ₄ "	1"
3"	2"	1 ¹ / ₄ "
4"	3"	1 ¹ / ₂ "
6"	3 ¹ / ₂ "	2"
8"	2/3 width	2 ¹ / ₂ "
10"	2/3 width	3"
12"	2/3 width	3 ¹ / ₂ "
Over 12"	2/3 width	4"

* Maximum holes limited to 1 per lineal ft. or equivalent smaller.

Serious distorted grain and burls not permitted.

Spike Knots - equivalent in effect to other knots.

Skips - hit and miss, or ¹/₁₆" scant if one side surfaced;
¹/₈" scant one edge if other edge surfaced.

Splits - approximately 1/4 the length.

Stained Wood - not limited.

Tolerance in Sawing

in rough stock - approximately ¹/₈" thicker and/or wider than
standard surfaced size.

Tongue - at least ¹/₈" wide.

Lap or Groove - at least ³/₁₆" wide.

Torn or Raised Grain - not limited.

Unsound Wood - spots or streaks well scattered.

Wane - 1/4 the width if not extending into opposite face,
except as equivalent to holes permitted.

Warp - heavy.

White Specks - not limited.

S1S Boards may have tolerance of ¹/₁₆" under or ¹/₃₂" over.

114e. "ECONOMY" BOARDS

Characteristics permitted and limiting provisions shall be:

Holes - 75% of cross section.

Honeycomb - not limited.

Knots - 75% of cross section.

Shake - not limited.

Splits - 1/3 length.



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Unsound Wood - 75% of cross section.

Wane - 1/2 width, full length of piece. If through the edge, equivalent to the area of the hole allowed. Through portion not to exceed 2' in length. If across the face, 1/2 the width must not exceed 1/8" scant in thickness for 1/3 length or equivalent.

Waste - Pieces over 6' in length may contain waste (areas where characteristics are larger than those permitted in the grade) which require removal by cross-cutting. The waste portions must not be located within 2' of either end of the piece and combined shall not exceed 25% of the length.

White Specks - Not limited.

Pieces cannot be more than 1/4" scant in width or 1/8" scant in thickness based on the S4S size.

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STRESS-RATED BOARDS

1 1/2" & Thinner - 2" & Wider

All Species

115. When Stress-Rated Boards are specified, they may be graded using the same paragraphs as stress-rated dimension (Light Framing, Structural Light Framing, Structural Joists & Planks or Studs) and the same strength values may be allotted.

When Stress-Rated Boards are grade stamped, the stamp shall show the paragraph number of the dimension grade used, dimension grade name and "SRB" to identify it as a Stress-Rated Board, in addition to the normal requirements.



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