

BOARDS ALL WEST COAST SPECIES

ROUGH OR SURFACED

Nominal Sizes up to 1-1/2" Thick
2" and Wider

118. Boards that are rough or surfaced two sides or surfaced one side are graded from the best face. 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."

In addition to the following specific provisions applicable to Boards, the appropriate provisions in all other paragraphs in the rules apply.

118-a. "SELECT MERCHANTABLE" – BOARDS. Lumber of this grade is intended primarily for use in housing and light construction where it is exposed, as paneling, shelving, and other uses where a knotty type of lumber with the finest appearance is required.

Pieces of this grade are of sound wood and free from wane on the face. Pieces may have on the face a few minor and unimportant characteristics such as:

Medium stained sapwood. Heart stain firm.

Limited pin holes.

Short splits.

Medium seasoning checks, scattered.

Medium torn or raised grain in scattered spots.

Small pitch streaks or light pitch.

Medium pitch or bark pockets, scattered.

Light skips on edges and back.

Tongue or lap 1/16" narrow.

Warp - light.

Knots, sound and tight, approximately:

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Face Width	Knot Size
2"	1"
3"	1-1/4"
4"	1-1/2"
5"	1-3/4"
6"	2"
8"	2-1/2"
10"	3"
12" and wider	3-1/2"

Spike knots are permitted if judged to have no more effect than other knots.

In occasional pieces a 1" sloughed knot not through the thickness is permitted, based on 12' lengths.

Black knots, sound and tight, are limited to 1/2 the size of other knots.

Tight separate roller checks totaling up to 1/2 the length on the reverse side are permitted if not through.

118-b. "CONSTRUCTION" - BOARDS. Lumber of this grade is recommended and widely used for subfloors, roof and wall sheathing, concrete forms and similar types of construction. Where they occur, characteristics are limited to assure a high degree of serviceability.

Pieces may have:

Stained wood.

Pin holes.

Short splits.

Seasoning checks.

Medium torn grain.

Pitch streak.

Medium pitch or bark pockets.

Light skips on face, medium on edges in occasional pieces. Hit and miss on the reverse face.

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Tongue or lap 1/16" narrow.

Warp - light.

Wane approximately 1" wide on face, 1/2 the thickness and 1/6 the length equivalent.

Knots, approximately:

Face Width	Firm & Tight Knots	Unsound or Not Firmly Fixed Knots	Holes*
2"	1"	1/2"	1/2"
3"	1-1/4"	5/8"	5/8"
4"	1-3/4"	7/8"	7/8"
5"	1-7/8"	7/8"	7/8"
6"	2"	1"	1"
8"	2-1/2"	1-1/4"	1-1/4"
10"	3"	1-1/2"	1-1/4"
12"	3-1/2"	1-3/4"	1-1/4"
Over 12"	4"	2"	1-1/4"

* Two holes of maximum size or equivalent smaller are permitted for each 12' of length.

Spike knots are permitted if judged equivalent to other knots.

118-c. "STANDARD" - BOARDS. "STANDARD" Boards are available in larger quantity and are more widely used than other grades for general construction purposes. Boards of this grade are used for subfloors, roof and wall sheathing concrete forms and similar types of construction. Although appearance is given consideration, pieces are graded chiefly for serviceability as they are seldom used in exposed construction.

Characteristics and limiting provisions are:

Stained wood.

Pin holes.

Splits 1/6 the length.

Seasoning checks.

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Heavy torn or raised grain.

Pitch streaks.

Pitch or bark pockets.

Hit and miss skips and in addition 10% of pieces may be hit or miss.

One edge may be 1/8" scant if one edge is surfaced.

Tongue or lap not over 1/8" narrow.

Warp - medium.

Wane 1/2 the thickness and 1/6 the width or equivalent.

Firm white specks limited to 1/3 of face area.

Shake tight through. Short separate shakes permitted full length or equivalent roller checks.

Knots:

Face Width	Firm & Tight	Unsound or Loose Knots and Holes	2 holes of maximum size or equivalent smaller are permitted for each 12' length.
2"	1-1/4"	3/4"	
3"	1-1/2"	1"	
4"	2-1/2"	1-1/4"	
5"	2-3/4"	1-3/8"	
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"	

Spike knots equivalent to other knots.

Any piece with an unusual combination of characteristics which affects normal serviceability is excluded from the grade.

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118-d. "UTILITY" - BOARDS. "UTILITY" Boards are based primarily on utility value instead of appearance and combine a high degree of usefulness and low cost for general construction purposes.

It is permissible at the shipper's option to ship "UTILITY" Boards in mixed West Coast species. On any order calling for one of these species, any combination may be shipped unless the order specifically excludes the other species.

Where they occur, the characteristics of this grade are so limited that each piece may be used full length.

Characteristics and limiting provisions are:

Stained wood.

Pin holes.

Splits 1/4 the length.

Seasoning checks.

Torn and raised grain.

Pitch streaks.

Pitch or bark pockets.

Hit or miss skips. One edge may be 1/8" scant if other edge is surfaced.

Tongue at least 1/8" wide. Lap or groove 3/16" wide.

Warp - heavy.

Wane 1/4 the width or equivalent, but not through the thickness, except as equivalent to holes permitted.

White speck and firm honeycomb.

Unsound wood in small spots and streaks, well scattered.

Shake - not serious.

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Knots:

Face Width	Firm & Tight	Unsound or Loose Knots and *Holes
2"	1-1/4"	1"
3"	2"	1-1/4"
4"	3"	1-1/2"
5"	3-1/4"	1-3/4"
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"

** Holes from any cause, of the sizes listed above, are permitted if limited to one per one foot of length or equivalent smaller.*

Spike knots equivalent to other knots.

Serious burls and distorted grain not permitted.

Any piece with an unusual combination of characteristics which affects normal serviceability is excluded from the grade.

118-e. "ECONOMY" - BOARDS. Lumber of this grade is suitable for low grade sheathing, crating, bracing and similar uses. It is frequently used in temporary construction. Short lengths of higher grade material may often be obtained from this grade by crosscutting.

It is permissible at the shipper's option to ship "ECONOMY" Boards in mixed West Coast species. On any order calling for one of these species, any combination may be shipped unless the order specifically excludes the other species.

All characteristics which do not interfere with use of the piece full length are permitted. In pieces over 6' long, characteristics which interfere with use of the piece full length are permitted if not located within 2' of either end; at least 75% of such a piece, however, must be usable after it has been cut into two or three pieces. Pieces 6' and shorter are usable full length. Skips in S4S stock are permitted but pieces must not be scant of the surfaced size more than 1/4" in width or 1/8" in thickness in the usable portion.

ALTERNATE BOARD GRADES

ALL SPECIES

Rough or Surfaced
All Widths and All Thicknesses

118-w. In addition to the Board grades listed in Paras. 118a-e, some manufacturers may choose to manufacture boards of some species under the Common board grade rules of the Western Wood Products Association. Those rules are republished here as Para. 118w.

30.0 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 judgment 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 limitations 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 Section 718.00. 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 they have no more effect than the other knots permitted in an individual grade.

ALTERNATE BOARD GRADES

30.10 COMMONS The five Common Board grades are: 1 COMMON (COLONIAL - IWP), 2 COMMON (STERLING - IWP), 3 COMMON (STANDARD - IWP), 4 COMMON (UTILITY - IWP), and 5 COMMON (INDUSTRIAL - IWP).

STANDARD SIZES for COMMON BOARDS (Including Thick Lumber Shipped Under Board Rules)

DRY LUMBER

Thickness			Widths		
Nominal	Surfaced		Nominal	Surfaced	
	Inch	mm		Inch	mm
3/4	5/8	16	2"	1-1/2	38
4/4	3/4	19	3"	2-1/2	64
5/4	1-5/32	29	4"	3-1/2	89
6/4	1-13/32	36	5"	4-1/2	114
7/4	1-19/32	40	6"	5-1/2	140
8/4	1-13/16	46	7"	6-1/2	165
9/4	2-3/32	53			
10/4	2-3/8	60			
11/4	2-9/16	65	8"	3/4	19
12/4	2-3/4	70	(and wider)	(off nominal)	(off nominal)
16/4	3-3/4	95			

Note: metric sizes converted from sizes in inches and rounded to the nearest 1 mm. Inch units shall be considered the standard.

Surfaced square size shall be governed by thickness. At manufacturer's option, dry 4/4 may be 25/32" Standard lengths are 6' and longer in multiples of 1'.

30.11 1 COMMON (COLONIAL - IWP) 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:

Checks - Four small surface seasoning checks in a 1" x 8" x 12".

ALTERNATE BOARD GRADES

Knots - Sound, tight knots and smooth red knots limited as follows:

Face Width	Knot Size	Face Width	Knot Size
2"	5/8"	8"	2-1/4"
3"	7/8"	10"	2-1/2"
4"	1-1/4"	12"	2-3/4"
6"	1-3/4"	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 on the edge, extending into the wide face not more than 1/2" and into not more than 1/2 the thickness.

Pitch - Light pitch over not more than 1/8 the area.

Pith - Firm heart pith, 1/4" wide, 1/6 the length.

Pockets - Two very small, dry pockets in a 1" x 8" x 12'.

Skip - Three very light skips on one edge or two light on back in a 1" x 8" x 12'.

Split - Very short splits, limited to one on each end.

Stain - Light stain over not more than 1/3 of face.

Torn or Raised Grain - Very light.

Wane - On back, 1/2 thickness, 1/8 width, 1/4 length in occasional pieces.

Warp -

Crook - As shown in Section 752(e).

Cup - Very Light. See Section 752(c).

Twist - 7/4 and thinner, very light. 8/4 and thicker, 1/2 of very light. See Section 752(d).

ALTERNATE BOARD GRADES

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30.12 2 COMMON (STERLING - IWP) Lumber of this grade is intended primarily for use in housing and light construction where it is exposed such as in paneling, 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:

Checks - Two medium seasoning checks or equivalent smaller in a 1"x 8"x12'. Light roller checks on back, not more than 1/4 the length.

Knots - Knots are limited as follows:

Face Width	Red Knots Sound and Tight	Black Knots Sound and Tight	Face Width	Red Knots Sound and Tight	Black Knots Sound and Tight
2"	1"	3/8"	8"	3"	1-1/4"
3"	1-1/4"	1/2"	10"	3-1/4"	1-3/8"
4"	2"	3/4"	11"	3-3/4"	1-1/2"
6"	2-1/2"	1"	14" & wider	4"	1-3/4"

The knot sizes listed above 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 two small fixed knots or one angling 3/4" hole on the edge extending into the wide face not more than 1" and not over 1/2 the thickness of the piece.

Black knots of maximum size in this grade are accepted in pieces of high quality and limited to one 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.

Pin Holes - A dozen scattered pin holes in a 1" x 8" x 12'.

Pitch - Streaks and patches of light to medium pitch covering 1/2 of face or two very small streaks of heavy pitch.

Pith - Firm heart pith, not more than 1/2" wide, 1/2 the length.

Pockets - Three small, dry well scattered pockets or equivalent smaller in a 1" x 8" x 12'.

Shake - Light shake, not over 1/6 the length.

Skip - Medium skip on back limited to 1/4 of length, medium on edge limited to 1/3 of length.

Split - Short splits, limited to one on each end.

Stain - Medium stained wood over entire face on pieces of otherwise high quality.

Torn or Raised Grain - Light.

Wane - On back, 1/2 thickness, 1/6 width, 1/3 length or equivalent in an occasional piece.

Warp -

Crook - As shown in Section 752(e).

Cup - Light. See Section 752(c).

Twist - 7/4 and thinner, very light. 8/4 and thicker, 1/2 of very light. See Section 752(d)

30.13 3 COMMON (STANDARD-IWP) 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, paneling and siding and is especially suited for fences, boxes, crating, sheathing and many industrial uses.

Characteristics and limiting provisions are:

Checks - Medium seasoning checks.

Roller checks (See Shake).

ALTERNATE BOARD GRADES

Knots - Knots are limited as follows:

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

The knot sizes listed above 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.

Black knots may be 2/3 size of allowable red knots, two 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 two 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.

Pin Holes - 30 per square foot or four small holes in a 1"x 8"x 12'.

Pitch - Heavy pitch over 1/2 the area or two small streaks of massed pitch.

Pockets - Medium, well scattered.

Shake - Light to medium shake, scattered full length in otherwise 2 Common type or one 3' light roller check on face, light to medium roller check 2/3 length on back.

Skip - One medium skip on face, hit and miss skips on back for 2/3 the length. One edge may have 1/8" skip for 1/2 the length or 1/6" skip full length.

Split - 1/6 the length.

ALTERNATE BOARD GRADES

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Stain - Medium to heavy stained wood over the entire face.

Torn Grain - Medium.

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.

Warp -

Crook - As shown in Section 752(e).

Cup - Medium. See Section 752(c).

Twist - 7/4 and thinner, light. 8/4 and thicker, 1/2 of light. See Section 752(d).

30.14 4 COMMON (UTILITY-IWP) 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.

Characteristics and limiting provisions are:

Checks - Large seasoning checks. Medium to heavy roller checks full length on back, light to medium 2/3 length on face.

Knots - Knots are limited as follows:

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

ALTERNATE BOARD GRADES

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

Pin Holes - Pin holes or small holes, not limited.

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

Pockets - Large.

Shake - Medium to heavy shake full length.

Skip - Hit and miss skip on face, 1/16" skip full length if surfaced one side. One edge may have 1/4" skip for 1/2 the length or 1/8" skip full length.

Split - 1/3 length.

Stain - Heavy stained wood.

Torn Grain - Heavy.

Unsound Wood - scattered spots of unsound wood or not firm honeycomb over 1/4 the face.

Wane - 1/2 thickness, 1/8 width, 1/6 length on face. Heavy wane on back, but equivalent to knot holes if through thickness.

Warp -

Crook - As shown in Section 752(e).

Cup - Heavy. See Section 752(c).

Twist - 7/4 and thinner, medium. 8/4 and thicker, 1/2 of medium. See Section 752(d).

White speck and Honeycomb - Firm.

30.15 5 COMMON (INDUSTRIAL - IWP) 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-IWP) 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.

**BOARDS
ALL WEST COAST SPECIES**

**STRESS RATED BOARDS
ALL WEST COAST SPECIES**

Surfaced
1-1/2" and Thinner,
2" and Wider

2

119. When lumber in nominal sizes 1-1/2" and thinner is required for uses demanding assured minimum strength properties, it may be graded under the provisions for the stress-rated dimension grades under Paras. 123 and 124. Pieces so graded are entitled to use the strength values listed in the appropriate tables of Para. 200.

Grade stamps applied to boards graded under the provisions of stress grades must show the dimension grade name and "SRB" designating stress rated boards, and in addition, conform to all other provisions for grade stamping set forth in Para. 1.