



## USA - Grading Rules for 2" Dimension Lumber



WIDTHS		EDGE KNOTS (knots at edge of wide face or narrow face knots)								CENTERLINE AND COMBINATION KNOTS (knots on wide face or multiple knots in cross-section)								HOLES (unsound, loose knots in SEL, NO.1)					
nominal inches	actual mm	mm				cross-sectional displacement				mm				cross-sectional displacement				mm					
		SEL	NO.1	NO.2	NO.3	SEL	NO.1	NO.2	NO.3	SEL	NO.1	NO.2	NO.3	SEL	NO.1	NO.2	NO.3	SEL	NO.1	NO.2	NO.3		
					STUD				STUD				STAND	STUD			STAND	STUD				STAND	STUD
4	88,9	19	25	<b>32</b>	44	21%	29%	<b>36%</b>	50%	22	38	<b>51</b>	64	25%	43%	<b>57%</b>	71%	19	25	<b>32</b>	44/38		
6	139,7	29	38	<b>48</b>	70	20%	27%	<b>34%</b>	50%	48	57	<b>73</b>	95	34%	41%	<b>52%</b>	68%	25	32	<b>38</b>	51		
8	184,2	38	51	<b>64</b>	89	21%	28%	<b>34%</b>	48%	57	70	<b>89</b>	114	31%	38%	<b>48%</b>	62%	32	38	<b>51</b>	64		
10	235,0	48	64	<b>83</b>	114	20%	27%	<b>35%</b>	49%	67	83	<b>108</b>	140	28%	35%	<b>46%</b>	59%	32	38	<b>64</b>	76		
12	285,8	57	76	<b>96</b>	140	20%	27%	<b>33%</b>	49%	76	95	<b>121</b>	165	25%	31%	<b>42%</b>	56%	32	38	<b>75</b>	89		

SIZES		LENGTHS		BOW (mm)			CROOK (mm)			TWIST (mm)			CUP (mm)		
nominal inches	actual mm	actual feet	actual mm	SEL, NO.1	NO.2	NO.3	SEL, NO.1	NO.2	NO.3	SEL, NO.1	NO.2	NO.3	SEL, NO.1	NO.2	NO.3
				CONST, STUD	STAND	UTIL	CONST, STUD	STAND	UTIL	CONST, STUD	STAND	UTIL	CONST, STUD	STAND	UTIL
2 x 4	38,1 x 88,9	8	2439	13	<b>19</b>	25	6	<b>10</b>	13	10	<b>13</b>	19	1	<b>1</b>	2
		10	3048	35	<b>38</b>	70	10	<b>13</b>	19	11	<b>16</b>	22	1	<b>1</b>	2
		12	3658	38	<b>51</b>	76	13	<b>17</b>	25	14	<b>19</b>	29	1	<b>1</b>	2
		14	4268	51	<b>64</b>	102	16	<b>22</b>	32	16	<b>22</b>	32	1	<b>1</b>	2
		16	4877	64	<b>83</b>	127	19	<b>25</b>	38	19	<b>25</b>	38	1	<b>1</b>	2
2 x 6	38,1 x 139,7	8	2439	13	<b>19</b>	25	6	<b>8</b>	13	14	<b>19</b>	29	2	<b>2</b>	3
		10	3048	35	<b>38</b>	70	8	<b>11</b>	16	17	<b>22</b>	35	2	<b>2</b>	3
		12	3658	38	<b>51</b>	76	11	<b>16</b>	22	21	<b>29</b>	41	2	<b>2</b>	3
		14	4268	51	<b>64</b>	102	14	<b>19</b>	29	24	<b>32</b>	48	2	<b>2</b>	3
		16	4877	64	<b>83</b>	127	17	<b>22</b>	35	29	<b>38</b>	57	2	<b>2</b>	3
2 x 8	38,1 x 184,2	8	2439	13	<b>19</b>	25	5	<b>6</b>	10	19	<b>25</b>	38	2	<b>3</b>	5
		10	3048	35	<b>38</b>	70	6	<b>10</b>	13	24	<b>32</b>	48	2	<b>3</b>	5
		12	3658	38	<b>51</b>	76	10	<b>13</b>	21	29	<b>38</b>	57	2	<b>3</b>	5
		14	4268	51	<b>64</b>	102	13	<b>16</b>	25	33	<b>44</b>	67	2	<b>3</b>	5
		16	4877	64	<b>83</b>	127	14	<b>19</b>	29	38	<b>51</b>	76	2	<b>3</b>	5
2 x 10	38,1 x 235,0	8	2439	13	<b>19</b>	25	3	<b>5</b>	6	24	<b>32</b>	48	3	<b>5</b>	6
		10	3048	35	<b>38</b>	70	6	<b>6</b>	11	30	<b>38</b>	60	3	<b>5</b>	6
		12	3658	38	<b>51</b>	76	10	<b>11</b>	19	35	<b>48</b>	70	3	<b>5</b>	6
		14	4268	51	<b>64</b>	102	11	<b>13</b>	22	41	<b>54</b>	83	3	<b>5</b>	6
		16	4877	64	<b>83</b>	127	13	<b>16</b>	25	48	<b>64</b>	95	3	<b>5</b>	6
2 x 12	38,1 x 285,8	8	2439	13	<b>19</b>	25	2	<b>3</b>	5	28	<b>38</b>	57	3	<b>6</b>	9
		10	3048	35	<b>38</b>	70	5	<b>5</b>	10	35	<b>48</b>	44	3	<b>6</b>	9
		12	3658	38	<b>51</b>	76	7	<b>9</b>	14	43	<b>57</b>	86	3	<b>6</b>	9
		14	4268	51	<b>64</b>	102	9	<b>9</b>	19	49	<b>67</b>	98	3	<b>6</b>	9
		16	4877	64	<b>83</b>	127	11	<b>13</b>	22	57	<b>76</b>	114	3	<b>6</b>	9

Please note that the above measurements are converted from US inches (25,4 mm) and are approximations. In case of disagreement, measurements according to NGR (National Grading Rule) in US inches are valid. The above measurements have been converted into metric units according to the American Softwood Lumber Standard PS20 regulations.



## USA - Grading Rules for 2" Dimension Lumber



WOOD PROPERTIES	SELECT STRUCTURAL	NO. 1	NO. 2 / STANDARD	NO. 3
Wane	1/4 thickness and 1/4 width full length or equivalent on each face. Not to exceed 1/2 the thickness or 1/3 the width for 1/4 of the length.		1/3 thickness and 1/3 width full length or equivalent on each face. Not to exceed 2/3 the thickness or 1/2 the width for 1/4 of the length.	1/2 thickness and 1/2 width full length or equivalent on each face. Not to exceed 7/8 the thickness or 3/4 the width for 1/4 of the length.
Slope of grain	1:12	1:10	NO.2 1:8 / STANDARD 1:4	1:4
Splits Checks Shakes	Surface checks allowed, if through at ends, considered as splits. Splits can be as long as the nominal width of the piece. Measure both faces and average. Surface shakes up to 610 mm long. Through shake away from end is not allowed.		Surface checks allowed. Splits and shakes at ends may be 1,5 x the nominal width of the piece. Shakes away from end may be through for 610 mm. Surface shakes may be 915 mm long or 1/4 the length.	Surface checks and shakes allowed. If through at ends or edges limit to 1/6 the length (including splits). All others 1/3 the length. Measure both faces and average.
Stain (blue, brown)	Not limited.			
Sawcut	Not allowed.		Limited to 1/2 the equivalent edge knot displacement if wide face to edge. Limited to 1/2 the allowable edge knot size on worst face if wide face to wide face.	
Unsound wood	Not allowed.		Limited to 1/12 the width and 51 mm in length, or equivalent, on any face or combination of faces.	Limited to spots or streaks 1/3 the cross section at any point along length. Must not destroy nailing edge.
Compression wood	Prohibited if in readily identifiable and damaging form. Damaging form = excessive warp, break, etc.			
Timber break	Not allowed.		NO.2 - Not allowed. STANDARD - Hole size on worst face.	Hole size on worst face.
Skips	Hit and miss (1,6mm deep) in a maximum of 10% of the pieces.		"Hit and miss" with max 1,6 mm depth. In addition 5% of pieces may be "Hit or miss", or heavy skip max depth 3,2 mm on max 610 mm length.	"Hit or miss" with max 1,6 mm depth. In addition 10% of pieces may have heavy skips max depth 3,2 mm.
Machine bite and offset	Maximum 1,6 mm.		Maximum 3,2 mm.	
Manufactured holes	The area shall not exceed the equivalent area of the knot hole permitted and is limited to one manufactured hole in 12 foot (3658 mm) of length or two in longer lengths.			
Length allowance	Diameter of knot hole.	1,5 x diameter of knot hole.	Width of piece.	1,5 x width of piece.
Rounding of edge	Maximum 3,2 mm.			
Moisture content	Maximum 19 %.			
DET (Double End Trim)	DET lumber is allowed to be up to 76 mm longer than the specified length, but not shorter.			
PET (Precision End Trim)	PET lumber is allowed to be 1,6 mm longer or shorter than the specified length on 20% of the pieces.			
Size tolerance	All lumber shall be manufactured to the correct sizes in inches. The tolerance for under-size is -0.0 mm. Over-sized lumber may be manufactured up to the next size.			

DIMENSION LUMBER SIZES		
nominal inches	actual inches	actual mm
2 x 4	1-1/2 x 3-1/2	38,1 x 88,9
2 x 6	1-1/2 x 5-1/2	38,1 x 139,7
2 x 8	1-1/2 x 7-1/4	38,1 x 184,2
2 x 10	1-1/2 x 9-1/4	38,1 x 235,0
2 x 12	1-1/2 x 11-1/4	38,1 x 285,8

- 1)** During routine mill inspection, lumber found to have 7,5% or more of below grade, excess moisture content or incorrect species will be held for re-inspection. Illegible or incomplete stamps of 10% or more will be held for restamping.
- 2)** Non-conforming inspection results can trigger mandatory follow up inspections under section 5.8.2 of the ALSC Lumber Enforcement Regulations which may be considered non-routine and may incur additional fees and travel expenses.
- 3)** All TP stamped lumber, regardless of destination, shall be reported as shipped volume. Also, any non-stamped lumber, regardless of size, which is shipped to the US or US territories shall be reported., before the 10th calendar day of the following month.
- 4)** It is only allowed to use TP approved stamps on material shipped to the US. This includes any stamps which reference ALSC recognized stamp nomenclature, such as grade, species, moisture content (KD), phytosanitation (HT), etc.