

WOOD SPECIES USED IN CONSTRUCTION

Western Wood Species

SPECIES COMBINATION	ABBREVIATIONS	SPECIES INCLUDED IN COMBINATION	PHYSICAL CHARACTERISTICS	COLOR RANGES
Douglas Fir-Larch	Doug Fir-L	Douglas Fir Western Larch	-Clear of knots -Superior strength -High hardness -Holds paint well	Reddish Brown with pronounced grain
Douglas Fir-South	D-Fir-S	Douglas Fir South (AZ, CO, NV, NM & UT)	Same as above	Same as above
Hem-Fir	Hem-Fir	Western Hemlock, Noble Fir, California Red Fir, Grand Fir, Pacific Silver Fir, White Fir	-Strong, stiff -Easy to work -Straight grained	Yellow brown to white
Spruce-Pine-Fir	SPF	Sitka Spruce, Englemann Spruce, Lodgepole Pine, Ponderosa Pine	-High grade -Tight knots -Smooth, straight grain	Yellowish white with occasional reddish orange streaks
Western Woods	West Woods	Sugar Pine, Idaho White Pine, Mountain Hemlock, Alpine Fir	-Straight grained -Excellent workability -Holds paint well	Pale yellow to reddish brown
Western Cedars	West CDR	Incense Cedar, Western Red Cedar, Port Orford Cedar, Alaskan Cedar	-Straight coarse grain -Lightweight - Brittle splits -Resistant to decay	Rich earthy red

WESTERN LUMBER SPAN CHARTS

These span charts represent the most commonly available grades of western dimensional lumber. Spans are for use in the U.S.A. and for dry service conditions. For other grades and loading conditions and spacing refer to the *Western Lumber Span Tables* published by the Western Wood Products Association. www.wwpa.org. Span charts courtesy of the Canadian Wood Council.

FLOOR JOISTS 30 PSF LIVE LOAD, 10 PSF DEAD LOAD, L360

Spruce-Pine-Fir-South	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
O.C.												
12"	10-9	10-5	8-11	14-2	13-9	11-4	18-0	17-6	13-10	21-11	21-4	16-1
16"	9-9	9-6	7-9	12-10	12-6	9-10	16-5	15-11	12-0	19-8	18-6	13-11
24"	8-6	8-3	6-4	11-3	10-8	8-0	13-10	13-0	9-9	16-1	15-1	11-4

Doug Fir-Larch	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2
O.C.												
12"	12-3	12-0	11-10	16-2	15-10	15-7	20-8	20-3	19-10	25-1	24-8	23-0
16"	11-2	10-11	10-9	14-8	14-5	14-1	18-9	18-5	17-2	22-10	21-4	19-11
24"	9-9	9-7	9-1	12-10	12-4	11-6	16-1	15-0	14-1	18-8	17-5	16-3

Doug Fir South	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
O.C.												
12"	11-0	10-9	9-6	14-6	14-2	12-0	18-6	18-0	14-8	22-6	21-11	17-0
16"	10-0	9-9	8-2	13-2	12-10	10-5	16-10	16-5	12-8	20-3	19-4	14-8
24"	8-9	8-6	6-8	11-6	11-2	8-6	14-3	13-8	10-4	16-6	15-10	12-0

WOOD SPECIES USED IN CONSTRUCTION

Western Wood Species Continued

FLOOR JOISTS 30 PSF LIVE LOAD, 10 PSF DEAD LOAD, L360

West. Woods	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
O.C.												
12"	10-5	10-1	8-5	13-9	13-4	10-8	17-1	17-0	13-0	19-10	19-10	15-1
16"	9-6	9-2	7-3	12-2	12-1	9-3	14-10	14-10	11-3	17-2	17-2	13-1
24"	7-10	7-10	5-11	9-11	9-11	7-6	12-1	12-1	9-2	14-0	14-0	10-8

Hem-Fir	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2
O.C.												
12"	11-7	11-7	11-0	15-3	15-3	14-8	19-5	19-5	18-6	23-7	23-7	22-6
16"	10-6	10-6	10-0	13-10	13-10	13-2	17-8	17-8	16-10	21-6	20-9	19-8
24"	9-2	9-2	8-9	12-1	12-0	11-4	15-5	14-8	13-10	17-10	17-0	16-1

FLOOR JOISTS 40 PSF LIVE LOAD, 10 PSF DEAD LOAD, L360

Spruce-Pine-Fir-South	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
O.C.												
12"	9-9	9-6	8-0	12-10	12-6	10-2	16-5	15-11	12-5	19-11	19-1	14-4
16"	8-10	8-7	6-11	11-8	11-4	8-9	14-11	14-3	10-9	17-7	16-6	12-5
24"	7-8	7-6	5-8	10-2	9-6	7-2	12-5	11-8	8-9	14-4	13-6	10-2

Doug Fir-Larch	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2
O.C.												
12"	11-2	10-11	10-9	14-8	14-5	14-2	18-9	18-5	17-9	22-10	22-0	20-7
16"	10-2	9-11	9-9	13-4	13-1	12-7	17-0	16-5	15-5	20-5	19-1	17-10
24"	8-10	8-8	8-1	11-8	11-0	10-3	14-5	13-5	12-7	16-8	15-7	14-7

Doug Fir South	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
O.C.												
12"	10-0	9-9	8-6	13-2	12-10	10-9	16-10	16-5	13-1	20-6	19-11	15-2
16"	9-1	8-10	7-4	12-0	11-8	9-3	15-3	14-11	11-4	18-1	17-4	13-2
24"	7-11	7-9	6-0	10-5	10-0	7-7	12-9	12-2	9-3	14-9	14-2	10-9

West. Woods	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade		
	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
O.C.												
12"	9-6	9-2	7-6	12-6	12-1	9-6	15-4	15-4	11-8	17-9	17-9	13-6
16"	8-7	8-4	6-6	10-10	10-10	8-3	13-3	13-3	10-1	15-5	15-5	11-8
24"	7-0	7-0	5-4	8-10	8-10	6-9	10-10	10-10	8-3	12-7	12-7	9-6

WOOD SPECIES USED IN CONSTRUCTION

Western Wood Species Continued

Hem-Fir	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade			
	O.C.	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2
12"		10-6	10-6	10-0	13-10	13-10	13-2	17-8	17-8	16-10	21-6	21-6	20-4
16"		9-6	9-6	9-1	12-7	12-7	12-0	16-0	16-0	15-2	19-6	18-7	17-7
24"		8-3	8-3	7-11	11-0	10-9	10-2	13-9	13-1	12-5	16-0	15-2	14-4

CEILING JOISTS LIMITED ATTIC STORAGE 20 PSF LIVE, 10 PSF DEAD LOAD, L240

Spruce-Pine-Fir-South	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade			
	O.C.	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
12"		14-1	13-8	10-4	18-6	17-5	13-1	22-7	21-3	16-0	26-3	24-8	18-6
16"		12-8	11-11	8-11	16-0	15-1	11-4	19-7	18-5	13-10	22-8	21-4	16-1
24"		10-4	9-8	7-4	13-1	12-4	9-3	16-0	15-0	11-4	18-6	17-5	13-1

Doug-Fir Larch	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade			
	O.C.	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2
12"		16-1	15-9	14-10	21-2	20-1	18-9	26-4	24-6	22-11	30-6	28-5	25-7
16"		14-7	13-9	12-10	18-8	17-5	16-3	22-9	21-3	19-10	26-5	24-8	23-0
24"		12-0	11-2	10-6	15-3	14-2	13-3	18-7	17-4	16-3	21-7	20-1	18-10

Doug Fir South	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade			
	O.C.	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
12"		14-5	14-1	10-11	19-0	18-3	13-10	23-3	22-3	16-11	27-0	25-10	19-7
16"		13-0	12-6	9-6	16-6	15-9	12-0	20-2	19-3	14-8	23-4	22-4	17-0
24"		10-8	10-2	7-9	13-6	12-11	9-9	16-5	15-9	11-11	19-1	18-3	13-10

West. Woods	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade			
	O.C.	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3	No. 1	No. 2	No. 3
12"		12-9	12-9	9-8	16-2	16-2	12-4	19-9	19-9	15-0	22-11	22-11	17-5
16"		11-1	11-1	8-5	14-0	14-0	10-8	17-1	17-1	13-0	19-10	19-10	15-1
24"		9-0	9-0	6-10	11-5	11-5	8-8	14-0	14-0	10-7	16-3	16-3	12-4

Hem-Fir	2x6 Grade			2x8 Grade			2x10 Grade			2x12 Grade			
	O.C.	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2	No. 1 & BTR	No. 1	No. 2
12"		15-2	15-2	14-5	19-11	19-7	18-6	25-2	23-11	22-7	29-2	27-9	26-3
16"		13-9	13-5	12-8	17-10	16-11	16-0	21-9	20-8	19-7	25-3	24-0	22-8
24"		11-6	10-11	10-4	14-7	13-10	13-1	17-9	16-11	16-0	20-7	19-7	18-6