

SOUTHERN PINE SPAN TABLES

Maximum Spans
given in feet and inches

Table 42 Floor Joists – 75 psf live load, 10 psf dead load, $\ell/360$

Size inches	Spacing inches on center	Grade									
		Dense Select Structural	Select Structural	NonDense Select Structural	No. 1 Dense	No. 1	No. 1 NonDense	No. 2 Dense	No. 2	No. 2 NonDense	No. 3
2 x 6	12	9-2	9-1	8-10	9-1	8-10	8-8	8-10	8-8	8-4	7-2
	16	8-4	8-3	8-1	8-3	8-1	7-11	8-1	7-11	7-7	6-2
	24	6-9	6-9	6-9	6-9	6-9	6-9	6-9	6-6	6-3	5-1
2 x 8	12	12-2	11-11	11-8	11-11	11-8	11-6	11-8	11-6	11-0	9-1
	16	11-0	10-10	10-8	10-10	10-8	10-5	10-8	10-4	9-10	7-11
	24	8-11	8-11	8-11	8-11	8-11	8-11	8-11	8-5	8-1	6-5
2 x 10	12	15-6	15-2	14-11	15-2	14-11	14-7	14-11	14-3	13-6	10-9
	16	14-1	13-10	13-7	13-10	13-7	13-2	13-2	12-4	11-9	9-4
	24	11-4	11-4	11-4	11-4	11-3	10-9	10-9	10-1	9-7	7-7
2 x 12	12	18-10	18-6	18-2	18-6	18-2	17-9	18-1	16-8	16-1	12-10
	16	17-1	16-10	16-6	16-10	16-4	15-8	15-8	14-5	13-11	11-1
	24	13-9	13-9	13-9	13-9	13-4	12-10	12-10	11-9	11-4	9-1

Table 43 Floor Joists – 80 psf live load, 10 psf dead load, $\ell/360$

Size inches	Spacing inches on center	Grade									
		Dense Select Structural	Select Structural	NonDense Select Structural	No. 1 Dense	No. 1	No. 1 NonDense	No. 2 Dense	No. 2	No. 2 NonDense	No. 3
2 x 6	12	9-0	8-10	8-8	8-10	8-8	8-6	8-8	8-6	8-2	7-0
	16	8-2	8-0	7-11	8-0	7-11	7-9	7-11	7-9	7-5	6-0
	24	6-5	6-5	6-5	6-5	6-5	6-5	6-5	6-4	6-1	4-11
2 x 8	12	11-11	11-8	11-5	11-8	11-5	11-3	11-5	11-3	10-9	8-10
	16	10-10	10-7	10-5	10-7	10-5	10-2	10-5	10-0	9-7	7-8
	24	8-5	8-5	8-5	8-5	8-5	8-5	8-5	8-2	7-10	6-3
2 x 10	12	15-2	14-11	14-7	14-11	14-7	14-4	14-7	13-10	13-2	10-5
	16	13-9	13-6	13-3	13-6	13-3	12-10	12-10	12-0	11-5	9-1
	24	10-9	10-9	10-9	10-9	10-9	10-5	10-5	9-9	9-4	7-5
2 x 12	12	18-5	18-1	17-9	18-1	17-9	17-5	17-7	16-2	15-7	12-5
	16	16-9	16-5	16-2	16-5	15-11	15-3	15-3	14-0	13-6	10-9
	24	13-1	13-1	13-1	13-1	13-0	12-5	12-5	11-5	11-0	8-10

These spans are based on the 1993 AFPA (formerly NFPA) Span Tables for Joists and Rafters and the 1991 SPIB Grading Rules, but include an additional check for shear. They are intended for use in covered structures or where the moisture content in use does not exceed 19 percent for an extended period of time. Loading conditions are expressed in psf (pounds per square foot). Deflection is limited to span in inches divided by 360 and is based on live load only.

These grades are the most commonly available.

SOUTHERN PINE SPAN TABLES

Maximum Spans
given in feet and inches

Table 44 Floor Joists – 90 psf live load, 10 psf dead load, $\ell/360$

Size inches	Spacing inches on center	Grade									
		Dense Select Structural	Select Structural	NonDense Select Structural	No. 1 Dense	No. 1	No. 1 NonDense	No. 2 Dense	No. 2	No. 2 NonDense	No. 3
2 x 6	12	8-8	8-6	8-4	8-6	8-4	8-2	8-4	8-2	7-10	6-7
	16	7-10	7-9	7-7	7-9	7-7	7-5	7-7	7-5	7-1	5-9
	24	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-10	5-9	4-8
2 x 8	12	11-5	11-3	11-0	11-3	11-0	10-9	11-0	10-9	10-4	8-5
	16	10-5	10-2	10-0	10-2	10-0	9-10	10-0	9-6	9-1	7-3
	24	7-9	7-9	7-9	7-9	7-9	7-9	7-9	7-9	7-5	5-11
2 x 10	12	14-7	14-4	14-0	14-4	14-0	13-9	14-0	13-2	12-6	9-11
	16	13-3	13-0	12-9	13-0	12-8	12-2	12-2	11-5	10-10	8-7
	24	9-10	9-10	9-10	9-10	9-10	9-10	9-10	9-3	8-10	7-0
2 x 12	12	17-9	17-5	17-1	17-5	17-1	16-8	16-8	15-4	14-10	11-10
	16	16-1	15-10	15-6	15-8	15-1	14-5	14-5	13-4	12-10	10-3
	24	12-0	12-0	12-0	12-0	12-0	11-10	11-10	10-10	10-6	8-4

Table 45 Floor Joists – 100 psf live load, 10 psf dead load, $\ell/360$

Size inches	Spacing inches on center	Grade									
		Dense Select Structural	Select Structural	NonDense Select Structural	No. 1 Dense	No. 1	No. 1 NonDense	No. 2 Dense	No. 2	No. 2 NonDense	No. 3
2 x 6	12	8-4	8-3	8-1	8-3	8-1	7-11	8-1	7-11	7-7	6-4
	16	7-7	7-6	7-4	7-6	7-4	7-2	7-4	7-0	6-9	5-5
	24	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	5-5	4-5
2 x 8	12	11-0	10-10	10-8	10-10	10-8	10-5	10-8	10-5	10-0	8-0
	16	10-0	9-10	9-8	9-10	9-8	9-6	9-8	9-1	8-8	6-11
	24	7-2	7-2	7-2	7-2	7-2	7-2	7-2	7-2	7-1	5-8
2 x 10	12	14-1	13-10	13-7	13-10	13-7	13-3	13-5	12-6	11-11	9-5
	16	12-9	12-7	12-4	12-7	12-1	11-7	11-7	10-10	10-4	8-2
	24	9-1	9-1	9-1	9-1	9-1	9-1	9-1	8-10	8-5	6-8
2 x 12	12	17-1	16-10	16-6	16-10	16-6	15-11	15-11	14-8	14-1	11-3
	16	15-7	15-3	15-0	14-11	14-5	13-9	13-9	12-8	12-3	9-9
	24	11-1	11-1	11-1	11-1	11-1	11-1	11-1	10-4	10-0	7-11

These spans are based on the 1993 AFPA (formerly NFPA) Span Tables for Joists and Rafters and the 1991 SPIB Grading Rules, but include an additional check for shear. They are intended for use in covered structures or where the moisture content in use does not exceed 19 percent for an extended period of time. Loading conditions are expressed in psf (pounds per square foot). Deflection is limited to span in inches divided by 360 and is based on live load only.

These grades are the most commonly available.