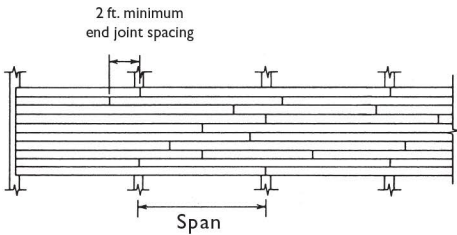


Allowable Uniform Loads

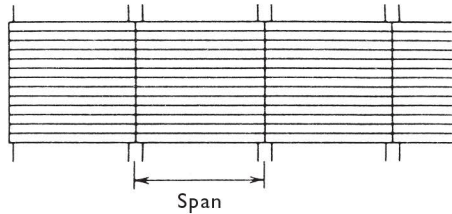
Random Length Continuous--A random length continuous configuration is applied over three or more spans. It is the most common method of applying Interlock decking and the most economical. This configuration allows the use of mixed lengths of material on a variety of span conditions, providing high structural efficiency as well as attractive appearance.

$$\Delta = \frac{wL^4}{130EI} \quad F_b = \frac{wL^2}{6.67S}$$

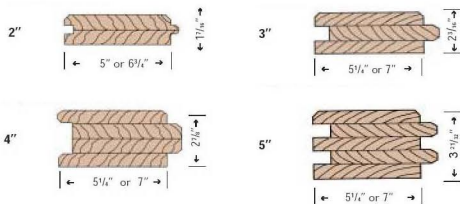


Simple Spans--This configuration requires specified length decking and provides shorter spans for the same thickness decking than the random length layout.

$$\Delta = \frac{5}{384} \frac{wL^4}{EI} \quad F_b = \frac{wL^2}{8S}$$



- ▲ = Deflection, inches²
- E = Modulus of elasticity of the decking, lbs. per inches²
- I = Moment of inertia for a 1-foot wide strip, inches⁴
- S = Section modulus for a 1-foot wide strip, inches³
- F_b = Allowable unit stress for extreme fiber bending, lbs. per inch²
- L = Span, inches
- W = Unit load along a 1-foot wide strip, lbs. per inch



Estimating Factors and Footage Conversion

Nominal Size (Inches)	Actual Sizes (Inches)	Bd. Ft./ Sq. Ft.	Bd. Ft./ Lineal Ft.
2 x 6	1 7/16 x 5	2.40	1.000
2 x 8	1 7/16 x 6 3/4	2.37	1.334
3 x 6	2 3/16 x 5 1/4	3.43	1.500
3 x 8	2 3/16 x 7	3.43	2.000
4 x 6	2 7/8 x 5 1/4	4.57	2.000
4 x 8	2 7/8 x 7	4.57	2.667
5 x 6	3 21/32 x 5 1/4	5.71	2.500
5 x 8	3 21/32 x 7	5.71	3.334

Factors are exact and do not include waste or trim loss.

Section Properties -- One Foot Section¹

Nominal Thickness Inches	Actual Thickness Inches	Area Sq. in.	Moment of Inertia in. ⁴	Section Modulus in. ³
2"	1 7/16	17.26	2.97	4.14
3"	2 3/16	25.88	10.29	9.39
4"	2 7/8	33.95	23.44	16.30
5"	3 21/32	43.13	48.04	26.26

1. Cross sectional properties per running foot.

Design Weights (lbs/ft²)

Species	2" Nominal	3" Nominal	4" Nominal	5" Nominal	Shipping Wgts. lbs./MBF
Southern Pine	5	7	9	12	2000

Allowable Stresses

Species	Modulus of Elasticity (E) psi	Extreme Fiber In Bending (F _b)		Shear Parallel to the Grain (F _v) psi
		Roof psi	Floor psi	
Southern Pine	1,800,000	2640	2300	200

Sloped Roof Deck -- Load Adjustment Factors¹

To calculate the allowable load for a sloped roof deck, apply the coefficient for the pitch to the load for a flat roof listed in the Allowable Load table below.

Slope	Slope
4:12 -- 1.05	9:12 -- 1.25
4 1/2:12 -- 1.07	9 1/2:12 -- 1.28
5:12 -- 1.08	10:12 -- 1.30
5 1/2:12 -- 1.10	10 1/2:12 -- 1.33
6:12 -- 1.12	11:12 -- 1.36
6 1/2:12 -- 1.14	11 1/2:12 -- 1.39
7:12 -- 1.16	12:12 -- 1.41
7 1/2:12 -- 1.18	12 1/2:12 -- 1.44
8:12 -- 1.20	14:12 -- 1.54
8 1/2:12 -- 1.23	16:12 -- 1.67

1. Estimated