

Expansion/Contraction Table & Formula

Board Length (in feet)	Installed Board Temperature (f)								Decimal Conversion	
	0	20	40	60	80	100	120	1/8 "	0.13	
								3/16 "	0.19	
								1/4 "	0.25	
6	0.00	0.03	0.06	0.10	0.13	0.16	0.19	5/16 "	0.31	
8	0.00	0.04	0.09	0.13	0.17	0.22	0.26	3/8 "	0.38	
12	0.00	0.06	0.13	0.19	0.26	0.32	0.39	7/16 "	0.44	
16	0.00	0.09	0.17	0.26	0.35	0.43	0.52	9/16 "	0.56	
	End Gap to Leave for Expansion (on each side)								11/16 "	0.69

Formula – Total inches of the board X temperature variation (in Fahrenheit) x .000045 = Total Board Movement

Example:

Board length (in feet) = 12

Board length (in inches) = 144 (12x12)

Estimated maximum board temperature (based on your climate) = 120°F

Estimated minimum board temperature (based on your climate) = 0°F

Estimated maximum board temperature fluctuation = 120° F

Formula: 144 (inches) x 120 (temperature fluctuation) x 0.000045 =
 0.7776 (total movement) / 2 (each end) = 0.3888

This chart is based on a 100° yearly temperature swing and the temperature of the board at the time of installation. Boards in direct sunlight will be warmer than the boards stacked underneath.