

Expansion and Contraction Values

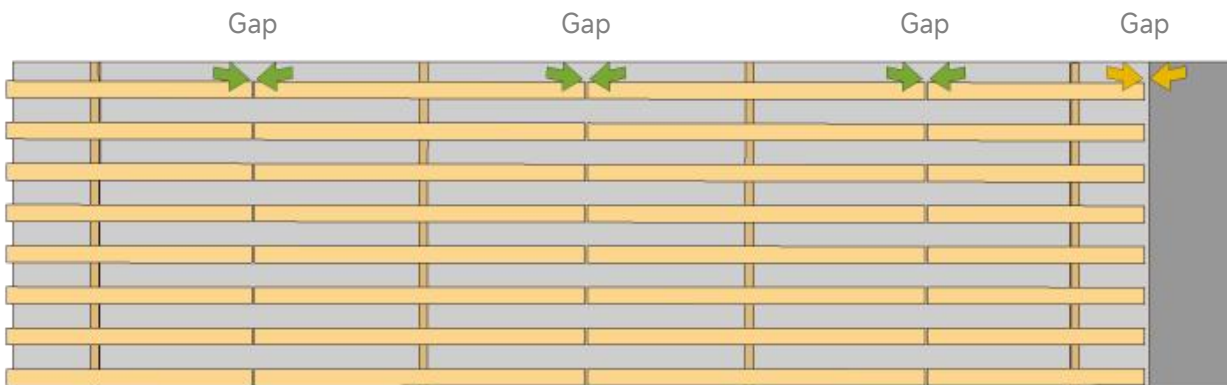
Oakio deck boards will experience expansion and contraction with changes in temperature. Expansion and contraction are most significant where extreme temperature changes occur.

Fastening the deck planks according to the gapping requirements noted in the following table, accommodates for this movement. (Assuming that the maximum temperature is 40°C in your region)

4 things you need to know to calculate the expansion and contraction :

1. Coefficient of linear Expansion(CLE): 0.045 mm/m(°C)
2. Installation Temperature (°C)
3. Maximum Temperature in your region (°C)
4. Length of the Board (m)

Gap=Coefficient of Linear Expansion(CLE,°C) x Length of the Board(m) x (Max. Temp. In your region - Installation Temp. °C)



"When the WPC board is adjacent to the wall, the reserved GAP is the value obtained by the above formula(The location pointed to by the orange arrow). The GAP space between two WPC boards is twice the value obtained by the above formula(The location pointed to by the green arrow)."

Length(Meters)

Installation Temperature(°C)	Length(Meters)											Gap (mm) To leave Between Boards
	1	2.44	2.8	3	3.66	3.9	4	4.88	5.4	5.8	6	
10	3	3.29	3.78	4.05	4.94	5.27	5.4	6.59	7.29	7.83	8.1	
15	3	3	3.15	3.38	4.12	4.39	4.5	5.49	6.08	6.53	6.75	
20	3	3	3	3	3.29	3.51	3.6	4.39	4.86	5.22	5.4	
25	3	3	3	3	3	3	3	3.29	3.65	3.92	4.05	
30	3	3	3	3	3	3	3	3	3	3	3	
35	3	3	3	3	3	3	3	3	3	3	3	
40	3	3	3	3	3	3	3	3	3	3	3	

(The value marked in orange is less than 3mm, then 3 mm shall prevail)

*NOTE: The above shows the overall gap required. If the boards have a gap each end, then halve the value shown. In addition, if the gap is less than 3 mm, then 3 mm shall prevail. The gap is greater than 3 mm, subject to the data in the table.