

FIBERFORCE® Plastic Lumber Installation Guide

1. Structural Ability

FIBERFORCE® plastic lumber is recommended for structural use, but care needs to be used in the design of the structure. In most cases the deflection will control the needed size of boards. Refer to span tables to determine support requirements based on live load and ambient temperature. If you have other applications please contact us or a qualified engineer or architect so he can take into account the long term creep and deflection with FIBERFORCE® plastic.

2. Expansion/Contraction

FIBERFORCE® plastic lumber expands and contracts along its length based on temperature. A calculation of change in length in inches (cm) can be done by using 0.000034 IN/IN/deg F (0.000086 cm/cm/deg C) multiplied by its length in inches (cm) and the temperate change of the board. This expansion and contraction on short lengths is minimal, but if you are using longer lengths and in a climate with large temperature change you need to take in account the expansion / contraction of the board in the design.

3. Fastening

When fastening a size #10 screw or larger is recommended. Always pre-drill holes. Each board should be fastened with at least 2 screws if fastening to a joist and should be at least 3/4" (2cm) from the edge or end of the board. Stainless steel fasteners are recommended.

4. Butt Joints

When butting FIBERFORCE® plastic against any wall, fixed surface or other boards (if necessary), they should be securely fastened to the nail board or double joist, with a gap allowing for expansion. The size of gap should be determined based on weather conditions at the time of installation – the closer the temperature is to the usual high temperature for the year, the smaller the gap. (See chart below). The project should be designed to minimize the butt joints. However, in the event that joints are required, a double joist underneath the butt joint should be used. Boards should be securely fastened with a row of screws on each side of the joint, 1" (2.54cm) from end of the board. Always keep boards out 1/4" (6mm) from permanent structure.

Temperature at time of installation	Gap between butt ends
Greater than or equal to 90° (32° C)F	1/32" (.8mm) or less
70° F (21° C)	1/16" (1.6mm)
50° F (10° C)	1/8" (3mm)
Less than 30° F (-1° C)	3/16" (4.8mm)

5. Rip Cutting

Rip cutting is not recommended on any plastic lumber. Much of the strength of the board is on the outside surface of the boards. Ripping boards can cause the boards to warp or curl.

Should there be any questions regarding these instructions, please contact your sales representative for more details. **Failure to follow these instructions will void all warranties.**

*Note: Information in parenthesis is a metric conversion of the English representation