



**BEDFORD**  
TECHNOLOGY

**SELECTFORCE® AND FIBERFORCE®**  
**HTP PLASTIC LUMBER PRODUCTS**  
**TECHNICAL MANUAL**

2424 ARMOUR ROAD  
WORTHINGTON, MN 56187  
1-800-721-9037  
WEBSITE [WWW.PLASTICBOARDS.COM](http://WWW.PLASTICBOARDS.COM)

---

---

## TABLE OF CONTENTS

### SELECTFORCE® HTP PLASTIC LUMBER PRODCUTS

2. TABLE OF CONTENTS
3. SELECTFORCE ® PRODUCT SUMMARY
4. SELECTFORCE ® SPECIFICATIONS
5. SELECTFORCE ® SPAN TABLES DECKING
6. SELECTFORCE ® SIZE CHART
7. SELECTFORCE ® INSTALLATION GUIDE

### FIBERFORCE® HTP PLASTIC LUMBER PRODCUTS

8. FIBERFORCE ® PRODUCT SUMMARY
9. FIBERFORCE ® SPECIFICATIONS
10. FIBERFORCE ® SPAN TABLES DECKING MODE
11. FIBERFORCE ® SPAN TABLES JOIST 120° 12" CENTER DISTANCE
12. FIBERFORCE ® SPAN TABLES JOIST 120° 12" CENTER DISTANCE
13. FIBERFORCE ® SPAN TABLES JOIST 120° 16" CENTER DISTANCE
14. FIBERFORCE ® SPAN TABLES JOIST 120° 16" CENTER DISTANCE
15. FIBERFORCE ® SPAN TABLES JOIST 120° 24" CENTER DISTANCE
16. FIBERFORCE ® SPAN TABLES JOIST 120° 24" CENTER DISTANCE
17. FIBERFORCE ® SIZE CHART
18. FIBERFORCE ® INSTALLATION GUIDE



**SELECTFORCE**® 100% recycled plastic product utilizes high quality HDPE (*High Density Polyethylene*) and color stabilizers to manufacture a high performance product. The material used to manufacture our product comes primarily from post consumer waste such as milk jugs, detergent bottles and is 100% recycled. This material is shredded and blended with additives to create a strong end product.

**SELECTFORCE**® plastic products are available in many different profiles and many proprietary and non-proprietary parts. **SELECTFORCE**® is available in variable lengths and comes standard in black. Other colors are available and custom color formulations are available upon request. Color stabilizers minimize color fading over the life of the product.

**SELECTFORCE**® is a cost effective alternative to products such as wood or composite materials. Due to low maintenance costs. It does not have to be painted, stained or treated and will not rot or splinter. Cleaning consists of soap and water then rinse. The cost savings only increases over time.

### **Basic Uses**

**SELECTFORCE**® has been used for many applications and is best suited where low load bearing is required. Our **FIBERFORCE**® product line is the choice for more structural and heavy load applications. Some of the more common uses have been benches, outdoor furniture, decking, docks, board walks, parking curbs, trim work, signs and playground equipment.

## SELECTFORCE® PLASTIC LUMBER SPECIFICATIONS

### DESCRIPTION:

Plastic lumber shall be manufactured with recycled HDPE. Lumber shall be molded in one piece per specified size. All materials will have UV additives to prevent deterioration of the plastic lumber from exposure to UV light. HDPE will be made up of no less than 95% recycled material; both post industrial and post consumer. Finished plastic lumber will not rot, split, crack or splinter for a minimum of 50 years. It shall be resistant to termites, marine borers, salt spray, oil, and fungus.

| TEST                                   | ASTM TEST    | ENGLISH  |                  | METRIC |                    |
|--|--------------|----------|------------------|--------|--------------------|
|  |              | VALUE    | UNITS            | VALUE  | UNITS              |
| Flexural Strength                      | D6109-97     | 1355     | PSI              | 95     | Kg/cm <sup>2</sup> |
| Flexural Modulus<br>Secant @ 1% strain | D6109-97     | 95939    | PSI              | 6744   | Kg/cm <sup>2</sup> |
| Compression Strength                   | D6108-97     | 1420     | PSI              | 100    | Kg/cm <sup>2</sup> |
| Compression Modulus                    | D6108-97     | 51000    | PSI              | 3585   | Kg/cm <sup>2</sup> |
| Specific Gravity                       | D6111-97     | 0.861    | g/cc             | 0.861  | g/cc               |
| Flash Point                            |              | 644      | Deg F°           | 340    | Deg C°             |
| Moisture Absorption                    |              | 0.06     | % by Weight      | 0.06   | % by Weight        |
| Thermal Expansion                      | D6341-98     | 0.000055 | Inch/Inch/Deg F° |        |                    |
| Average Screw pull out                 | D6117        | 646      | Lbs              | 293    | Kg                 |
| Static coefficient of Friction-Dry     | D2394-83(99) | .48      |                  |        |                    |
| Static coefficient of Friction-Wet     | D2394-83(99) | .40      |                  |        |                    |
| Sliding coefficient of Friction-Dry    | D2394-83(99) | .22      |                  |        |                    |
| Sliding coefficient of Friction-Wet    | D2394-83(99) | .43      |                  |        |                    |

### MECHANICAL PROPERTIES:

| FACE WIDTH      | 4"    | 6"   | 8"    | 10"  | 12"  |
|-----------------|-------|------|-------|------|------|
| Tolerance (+/-) | 3/32" | 1/8" | 3/16" | 1/4" | 1/4" |

### DIMENSIONAL TOLERANCES:

**CUP/BULDGE TOLERANCES-deviation in the face from a straight line from edge to edge of piece.**

**LENGTH TOLERANCE = + 3" / -0" - MEASURED AT 70° DEG F**

The technical data on this page represents only average values and not minimum values. Safety factors must be added into the design.

# **SELECTFORCE® PLASTIC LUMBER** **SPAN TABLES 122 DEGREE F.**

## **DECKING MODE**

### **60 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 17.5   | 1.5          |  |
| 2X6,8,10,12   | 1.5         | 23.1   | 1.9          |  |
| 3X4,6,8,10,12 | 2.4         | 36.3   | 3            |  |
| 4X4,6,8,10,12 | 3.4         | 50.4   | 4.2          |  |
| 5X5           | 4.4         | 63.9   | 5.3          |  |
| 6X6,8,12      | 5.4         | 77     | 6.4          |  |

### **150 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 13.1   | 1.1          |  |
| 2X6,8,10,12   | 1.5         | 17.4   | 1.5          |  |
| 3X4,6,8,10,12 | 2.4         | 27.6   | 2.3          |  |
| 4X4,6,8,10,12 | 3.4         | 38.7   | 3.2          |  |
| 5X5           | 4.4         | 49.7   | 4.1          |  |
| 6X6,8,12      | 5.4         | 60.5   | 5            |  |

### **100 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 14.9   | 1.2          |  |
| 2X6,8,10,12   | 1.5         | 19.8   | 1.6          |  |
| 3X4,6,8,10,12 | 2.4         | 31.3   | 2.6          |  |
| 4X4,6,8,10,12 | 3.4         | 43.7   | 3.6          |  |
| 5X5           | 4.4         | 55.8   | 4.7          |  |
| 6X6,8,12      | 5.4         | 67.7   | 5.6          |  |

### **200 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 11.9   | 1            |  |
| 2X6,8,10,12   | 1.5         | 15.9   | 1.3          |  |
| 3X4,6,8,10,12 | 2.4         | 25.2   | 2.1          |  |
| 4X4,6,8,10,12 | 3.4         | 35.5   | 3            |  |
| 5X5           | 4.4         | 45.6   | 3.8          |  |
| 6X6,8,12      | 5.4         | 55.6   | 4.6          |  |

Chart for ambient 122° F  
For use with live load only; for dead loads please consult factory

## **SELECTFORCE® RECYCLED PLASTIC LUMBER** **SIZE CHART**

| <b>LUMBER SIZE</b>      | <b>ACTUAL DIMENSIONS</b> | <b>LONGEST LENGTH AVAILABLE FEET</b> | <b>WEIGHT LBS PER FOOT</b> |
|-------------------------|--------------------------|--------------------------------------|----------------------------|
| 2 1/2" Round            | 2.25" Diameter           | 8                                    | 1.6                        |
| 4" Round                | 3.9" Diameter            | 12                                   | 4.4                        |
| 10" Round               | 9.8" Diameter            | 24                                   | 26.2                       |
| 5/4" x 4"               | 1.1" x 3 1/2"            | 12                                   | 1.4                        |
| 5/4" x 6"               | 1.1" x 5 1/2"            | 12                                   | 2.2                        |
| 5/4" x 8"               | 1.1" x 7 1/2"            | 12                                   | 2.9                        |
| 2" x 2"                 | 1 1/2" x 1 1/2"          | 8                                    | 0.9                        |
| 2" x 3"                 | 1 1/2" x 2 1/2"          | 8                                    | 1.5                        |
| 2" x 4" Bull Nose       | 1 1/2" x 3 1/2"          | 16/12                                | 2                          |
| 2" x 6"                 | 1 1/2" x 5 1/2"          | 16                                   | 3.2                        |
| 2" x 8"                 | 1 1/2" x 7 1/2"          | 20                                   | 3.9                        |
| 2" x 10"                | 1 1/2" x 9 3/8"          | 16                                   | 5                          |
| 2" x 12"                | 1 1/2" x 11 1/4"         | 16                                   | 6                          |
| 3" x 4" Bull Nose       | 2 1/2" x 3 1/2"          | 16                                   | 3.1                        |
| 3" x 6"                 | 2 1/2" x 5 1/2"          | 12                                   | 4.7                        |
| 3" x 8" Bull Nose       | 2 1/2" x 7 1/2"          | 12/16                                | 6.5                        |
| 3" x 10"                | 2 1/2" x 9 3/8"          | 16                                   | 8.1                        |
| 3" x 12"                | 2 1/2" x 11 1/4"         | 16                                   | 10                         |
| 4" x 4"                 | 3 1/2" x 3 1/2"          | 16                                   | 4.4                        |
| True 4" x 4"            | 4" x 4"                  | 16                                   | 5.4                        |
| 4" x 6"                 | 3 1/2" x 5 1/2"          | 20                                   | 6.7                        |
| 4" x 8"                 | 3 1/2" x 7 1/2"          | 16                                   | 9.1                        |
| 4" x 12"                | 3 1/2" x 11 1/4"         | 20                                   | 13.8                       |
| 5" x 5"                 | 4 1/2" x 4 1/2"          | 16                                   | 7                          |
| 6" x 6"                 | 5 1/2" x 5 1/2"          | 20                                   | 9.7                        |
| 6" x 8"                 | 5 1/2" x 7 1/2"          | 20                                   | 15.2                       |
| 6" x 10"                | 5 1/2" x 9 3/8"          | 20                                   | 19.5                       |
| 6' x 12'                | 5 1/2" x 11 1/4"         | 20                                   | 22                         |
| 8" x 8"                 | 7 1/2" x 7 1/2"          | 24                                   | 20                         |
| 8" x 10"                | 7 1/2" x 9 3/8"          | 18                                   | 26                         |
| 8" x 12"                | 7 1/2" x 11 3/8"         | 24                                   | 31                         |
| 10" x 10"               | 9 3/4" x 9 3/4"          | 20                                   | 36                         |
| 10" x 12"               | 9 3/8" x 11 3/8"         | 24                                   | 43                         |
| 12" x 12"               | 11 3/4" x 11 3/4"        | 24                                   | 52                         |
| Heavy Duty Parking Curb | 6.5" x 4.5" tall         | 8                                    | 8.8                        |
| Parking Curb            | 6" x 4" tall             | 8                                    | 5.9                        |
| Speed Bump              | 2" tall x 10"            | 8                                    | 4.2                        |

# **SELECTFORCE® PLASTIC PRODUCT INSTALLATION GUIDE**

## **1. Structural Ability**

SELECTFORCE ® plastic is not recommended for structural use; therefore, the substructure must be constructed of FIBERFORCE ®, or another structural grade material. Due to its increased flexibility (as compared to wood), SELECTFORCE ® plastic lumber requires more support. Please refer to span tables to determine support requirements based on live load and ambient temperature.

## **2. Expansion/Contraction**

SELECTFORCE ® plastic expands and contracts along its length. A 10' (3.048m) length will expand and contract up to 3/8" (1cm). Due to this fact, SELECTFORCE ® plastic should be run along the shortest length with the joist running the long direction. **Example:** An 8'x16' (2.44m x 4.88m) deck should use 8' (2.44m) SELECTFORCE ® plastic over joists running the 16' (4.88m) length. These joists are normally divided into 2– 8'x8' (2-2.44m x 2.44m) sections with a header between them. Also, lighter colors do not heat up as much in sunlight and are therefore preferable when installing in a sunny location.

## **3. Fastening**

To withstand the expansion and contraction as well as to maintain a long lasting, beautiful looking deck, stainless steel deck screws should be used, preferably #10 x 2 1/2 (#10 x 6.5cm) or 3" (7.5cm) long, square drive stainless steel deck screws. Each deck board should be fastened with at least 2 screws per joist. Screws must be pre-drilled and should be counter-sunk. Also, coating the screws with a lubricant, such as a silicone caulk, or soap will ease installation. All screws should be a minimum of 3/4" (2cm) from the edge or end of the board.

## **4. Butt Joints**

When butting SELECTFORCE ® plastic lumber against any wall, fixed surface or other boards (if necessary), they should be securely fastened to the nailer 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" (2.5cm) from end of the board. Always keep deck boards out 3/8" (1cm) from permanent structure.

| <b>Temperature at time of installation</b> | <b>Gap between butt ends</b> |
|--|------------------------------|
| Greater then or equal to 90° F (32° C)     | 1/16" (1.5mm) or less        |
| 70° F (21° C)                              | 1/8" (3mm)                   |
| 50° F (10° C)                              | 1/4" (6mm)                   |
| Less than 30° F (-1° C)                    | 3/8" (1cm)                   |

## **10. Rip Cutting**

Rip cutting is not recommended on any plastic lumber. In the event that rip cutting is needed please refer to the following example. Example, if a 4" (10cm) board is needed, 3/4" (2cm) should be ripped off of both sides of a 5-1/2" (14cm) board.

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



**FIBERFORCE**® is high performance structural products consisting of high quality HDPE (High Density Polyethylene) and fiberglass to increase strength and rigidity in the product. The HDPE used to manufacture **FIBERFORCE**® is primarily derived from post consumer products and is 100% recycled content.

**FIBERFORCE**® is manufactured in many different profiles and lengths. **FIBERFORCE**® is resistant to marine borers, termites, fungus, salt and oils so replacement due to these elements is nearly nonexistent.

### **Basic Uses**

**FIBERFORCE**® is proven for use in structural applications where a wider span, dimensional stability, increased strength or stiffness is required. Due to the increased strength and resistance to environmental elements, **FIBERFORCE**® is well suited for exterior applications where structural support or load bearing is required. Examples of applications are: retaining walls, fencing, decks, large equipment mats, light commercial and many marine applications.

# **FIBERFORCE® PLASTIC LUMBER SPECIFICATIONS**

**DESCRIPTION:**

Structural plastic lumber shall be manufactured with HDPE and fiberglass elements to act as a reinforcement with HDPE. Lumber shall be molded in one piece per specified size. All materials will have UV additives to prevent deterioration of the plastic lumber from exposure to UV light. HDPE will be made up of 100% recycled material; both post industrial & post consumer, excluding additives and colorants. Finished plastic lumber will not rot, split, crack or splinter for a minimum of 50 years. It shall be resistant to termites, marine borers, salt spray, oil and fungus.

| Test  | ASTM Test    | ENGLISH  |   | METRIC |                    |
|---|--------------|----------|---|--------|--------------------|
|   |              | Value    | Units                                     | Value  | Units              |
| Flexural Strength   | D6109        | 2750     | PSI                                       | 193    | Kg/cm <sup>2</sup> |
| Flexural Modulus Secant @ 1% strain                                     | D6109        | 306080   | PSI                                       | 21520  | Kg/cm <sup>2</sup> |
| Compression Strength Parallel to grain                                  | D6108        | 2842     | PSI                                       | 200    | Kg/cm <sup>2</sup> |
| Compression Strength Perpendicular to grain                             | D6108        | 1482     | PSI                                       | 104    | Kg/cm <sup>2</sup> |
| Compression Modulus Strength Parallel to grain—Secant at 1% strain      | D6108        | 159576   | PSI                                       | 11219  | Kg/cm <sup>2</sup> |
| Compression Modulus Strength Perpendicular to grain—Secant at 1% strain | D6108        | 54119    | PSI                                       | 3804   | Kg/cm <sup>2</sup> |
| Specific Gravity  | D6111        | 0.93     | g/cc                                      | 0.93   | g/cc               |
| Flash Point   |              | 644      | Deg F                                     | 340    | Deg C              |
| Moisture Absorption   |              | 0.06     | % by Weight                               | 0.06   | % by Weight        |
| Thermal Expansion   | D6341-98     | 0.000033 | Inch / Inch / Deg F                       |        |                    |
| Average Screw pull out  | D6117        | 646      | Lbs                                       | 293    | Kg                 |
| Static Coefficient of Friction—Dry                                      | D2394-83(99) | .53      |   |        |                    |
| Static Coefficient of Friction—Wet                                      | D2394-83(99) | .51      |   |        |                    |
| Sliding Coefficient of Friction—Dry                                     | D2394-83(99) | .23      |   |        |                    |
| Sliding Coefficient of Friction—Wet                                     | D2394-83(99) | .51      |   |        |                    |
| Flame Spread  | E84(03a)     | 62       |   |        |                    |
| Flame Spread Classification   | E84(03a)     | 60       |   |        |                    |
| Smoke Developed   | E84(03a)     | 230      |   |        |                    |
| Smoke Developed Classification  | E84(03a)     | 250      |   |        |                    |
| Spontaneous Ignition  | D-1929       | 824      | Deg F                                     | 440    | Deg C              |
| Tensile test (skin)   | D638         | 3623     | PSI                                       | 254    | Kg/cm <sup>2</sup> |
| Shear Strength  | D2344        | 800      | PSI                                       | 56     | Kg/cm <sup>2</sup> |
| Notched impact resistance Method A                                      | D256         | 2.77     | Ft * LB / IN                              |        |                    |
| Abrasion resistance   | D4060        | <0.02    | Oz—with 2.2 lb sample                     |        |                    |
| Ultraviolet (skin)  | D4329        | <10      | % Change in Type D durometer at 500 hours |        |                    |

**DIMENSIONAL TOLERANCES:**

**CUP/BULDGE TOLERANCES—deviation in the face from a straight line from edge to edge of piece.**

| FACE WIDTH      | 4"    | 6"   | 8"    | 10"  | 12"  |
|-----------------|-------|------|-------|------|------|
| Tolerance (+/-) | 3/32" | 1/8" | 3/16" | 1/4" | 1/4" |

**LENGTH TOLERANCE = 3" / -0" - Measured at 70 deg. F**

The above listed are specifications for plastic lumber to be used as a reference for bid specifications. This is only a guide. Your specific application should be addressed by a professional engineer.

**FIBERFORCE® PLASTIC LUMBER**  
**SPAN TABLES 120° DEGREE F**

**DECKING MODE**

**60 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 24.3   | 2            |  |
| 2X6,8,10,12   | 1.5         | 32.1   | 2.7          |  |
| 3X4,6,8,10,12 | 2.4         | 50.3   | 4.2          |  |
| 4X4,6,8,10,12 | 3.4         | 69.8   | 5.8          |  |
| 5X5           | 4.4         | 88.7   | 7.4          |  |
| 6X6,8,12      | 5.4         | 106.8  | 8.9          |  |

**150 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 18.2   | 1.5          |  |
| 2X6,8,10,12   | 1.5         | 24.1   | 2            |  |
| 3X4,6,8,10,12 | 2.4         | 38.3   | 3.2          |  |
| 4X4,6,8,10,12 | 3.4         | 53.7   | 4.5          |  |
| 5X5           | 4.4         | 68.9   | 5.7          |  |
| 6X6,8,12      | 5.4         | 83.9   | 7            |  |

**100 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 20.7   | 1.7          |  |
| 2X6,8,10,12   | 1.5         | 27.4   | 2.3          |  |
| 3X4,6,8,10,12 | 2.4         | 43.4   | 3.6          |  |
| 4X4,6,8,10,12 | 3.4         | 60.6   | 5.1          |  |
| 5X5           | 4.4         | 77.4   | 6.5          |  |
| 6X6,8,12      | 5.4         | 93.9   | 7.8          |  |

**200 LBS/SQ FOOT LIVE LOAD**

| SIZE          | ACTUAL SIZE |        | MAXIMUM SPAN |  |
|---------------|-------------|--------|--------------|--|
|               | THICKNESS   | INCHES | FT           |  |
| 5/4X4,6,8     | 1.125       | 16.6   | 1.4          |  |
| 2X6,8,10,12   | 1.5         | 22     | 1.8          |  |
| 3X4,6,8,10,12 | 2.4         | 35     | 2.9          |  |
| 4X4,6,8,10,12 | 3.4         | 49.2   | 4.1          |  |
| 5X5           | 4.4         | 63.2   | 5.3          |  |
| 6X6,8,12      | 5.4         | 77.1   | 6.4          |  |

Chart for ambient 120° F  
 For use with live load only; for dead loads please consult factory

# **FIBERFORCE® PLASTIC LUMBER** **SPAN TABLES JOIST 120° DEGREE F**

**12" CENTER DISTANCE**

**60 LBS/SQ FOOT LIVE LOAD**

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 33.4         | 2.8  |
| 5/4 x6  | 1.1         | 5.4    | 51.4         | 4.3  |
| 5/4 x 8 | 1.1         | 7.3    | 69.2         | 5.8  |
| 2 x 4   | 1.5         | 3.5    | 37           | 3.1  |
| 2 x 6   | 1.5         | 5.4    | 56.8         | 4.7  |
| 2 x 8   | 1.5         | 7.3    | 76.4         | 6.4  |
| 2 x 10  | 1.5         | 9.25   | 96.3         | 8    |
| 2 x 12  | 1.5         | 11.3   | 117          | 9.7  |
| 3 x 4   | 2.4         | 3.4    | 41.8         | 3.5  |
| 3 x 6   | 2.4         | 5.5    | 67           | 5.6  |
| 3 x 8   | 2.4         | 7.4    | 89.5         | 7.5  |
| 3 x 10  | 2.4         | 9.3    | 111.6        | 9.3  |
| 3 x 12  | 2.4         | 11.3   | 134.5        | 11.2 |
| 4 x 4   | 3.4         | 3.4    | 46.7         | 3.9  |
| 4 x 6   | 3.4         | 5.4    | 73.3         | 6.1  |
| 4 x 8   | 3.4         | 7.5    | 100.5        | 8.4  |
| 4 x 12  | 3.4         | 11.375 | 149.4        | 12.4 |
| 5 x 5   | 4.4         | 4.4    | 64.9         | 5.4  |
| 6 x 6   | 5.4         | 5.4    | 84           | 7    |
| 6 x 8   | 5.4         | 7.4    | 113.1        | 9.4  |
| 6 x 12  | 5.4         | 11.3   | 167.6        | 14   |
| 8 x 8   | 7.3         | 7.3    | 121          | 10.1 |
| 8 x 10  | 7.3         | 9.3    | 151.1        | 12.6 |
| 10 x 10 | 9.8         | 9.8    | 169.4        | 14.1 |

**100 LBS/SQ FOOT LIVE LOAD**

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 28.7         | 2.4  |
| 5/4 x6  | 1.1         | 5.4    | 44.2         | 3.7  |
| 5/4 x 8 | 1.1         | 7.3    | 59.6         | 5    |
| 2 x 4   | 1.5         | 3.5    | 31.8         | 2.6  |
| 2 x 6   | 1.5         | 5.4    | 48.8         | 4.1  |
| 2 x 8   | 1.5         | 7.3    | 65.8         | 5.5  |
| 2 x 10  | 1.5         | 9.25   | 83.1         | 6.9  |
| 2 x 12  | 1.5         | 11.3   | 101.2        | 8.4  |
| 3 x 4   | 2.4         | 3.4    | 36           | 3    |
| 3 x 6   | 2.4         | 5.5    | 57.9         | 4.8  |
| 3 x 8   | 2.4         | 7.4    | 77.5         | 6.5  |
| 3 x 10  | 2.4         | 9.3    | 96.9         | 8.1  |
| 3 x 12  | 2.4         | 11.3   | 117.1        | 9.8  |
| 4 x 4   | 3.4         | 3.4    | 40.2         | 3.4  |
| 4 x 6   | 3.4         | 5.4    | 63.4         | 5.3  |
| 4 x 8   | 3.4         | 7.5    | 87.4         | 7.3  |
| 4 x 12  | 3.4         | 11.375 | 130.8        | 10.9 |
| 5 x 5   | 4.4         | 4.4    | 56.3         | 4.7  |
| 6 x 6   | 5.4         | 5.4    | 73.2         | 6.1  |
| 6 x 8   | 5.4         | 7.4    | 99.1         | 8.3  |
| 6 x 12  | 5.4         | 11.3   | 148.2        | 12.4 |
| 8 x 8   | 7.3         | 7.3    | 106.7        | 8.9  |
| 8 x 10  | 7.3         | 9.3    | 134          | 11.2 |
| 10 x 10 | 9.8         | 9.8    | 151.9        | 12.7 |

# **FIBERFORCE® PLASTIC LUMBER**

## **SPAN TABLES JOIST 120° DEGREE F**

**12" CENTER DISTANCE**

**150 LBS/SQ FOOT LIVE LOAD**

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 25.3         | 2.1  |
| 5/4 x6  | 1.1         | 5.4    | 39           | 3.2  |
| 5/4 x 8 | 1.1         | 7.3    | 52.6         | 4.4  |
| 2 x 4   | 1.5         | 3.5    | 28           | 2.3  |
| 2 x 6   | 1.5         | 5.4    | 43.1         | 3.6  |
| 2 x 8   | 1.5         | 7.3    | 58.2         | 4.8  |
| 2 x 10  | 1.5         | 9.25   | 73.5         | 6.1  |
| 2 x 12  | 1.5         | 11.3   | 89.6         | 7.5  |
| 3 x 4   | 2.4         | 3.4    | 31.8         | 2.6  |
| 3 x 6   | 2.4         | 5.5    | 51.2         | 4.3  |
| 3 x 8   | 2.4         | 7.4    | 68.6         | 5.7  |
| 3 x 10  | 2.4         | 9.3    | 85.9         | 7.2  |
| 3 x 12  | 2.4         | 11.3   | 104          | 8.7  |
| 4 x 4   | 3.4         | 3.4    | 35.6         | 3    |
| 4 x 6   | 3.4         | 5.4    | 56.2         | 4.7  |
| 4 x 8   | 3.4         | 7.5    | 76.6         | 6.4  |
| 4 x 12  | 3.4         | 11.375 | 116.6        | 9.7  |
| 5 x 5   | 4.4         | 4.4    | 49.9         | 4.2  |
| 6 x 6   | 5.4         | 5.4    | 65           | 5.4  |
| 6 x 8   | 5.4         | 7.4    | 88.4         | 7.4  |
| 6 x 12  | 5.4         | 11.3   | 133          | 11.1 |
| 8 x 8   | 7.3         | 7.3    | 95.5         | 8    |
| 8 x 10  | 7.3         | 9.3    | 120.5        | 10   |
| 10 x 10 | 9.8         | 9.8    | 137.4        | 11.5 |

**200 LBS/SQ FOOT LIVE LOAD**

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 23.1         | 1.9  |
| 5/4 x6  | 1.1         | 5.4    | 35.6         | 3    |
| 5/4 x 8 | 1.1         | 7.3    | 48           | 4    |
| 2 x 4   | 1.5         | 3.5    | 25.6         | 2.1  |
| 2 x 6   | 1.5         | 5.4    | 39.4         | 3.3  |
| 2 x 8   | 1.5         | 7.3    | 53.2         | 4.4  |
| 2 x 10  | 1.5         | 9.25   | 67.2         | 5.6  |
| 2 x 12  | 1.5         | 11.3   | 82           | 6.8  |
| 3 x 4   | 2.4         | 3.4    | 29           | 2.4  |
| 3 x 6   | 2.4         | 5.5    | 46.8         | 3.9  |
| 3 x 8   | 2.4         | 7.4    | 62.8         | 5.2  |
| 3 x 10  | 2.4         | 9.3    | 78.7         | 6.6  |
| 3 x 12  | 2.4         | 11.3   | 95.3         | 7.9  |
| 4 x 4   | 3.4         | 3.4    | 32.5         | 2.7  |
| 4 x 6   | 3.4         | 5.4    | 51.4         | 4.3  |
| 4 x 8   | 3.4         | 7.5    | 69.3         | 5.8  |
| 4 x 12  | 3.4         | 11.375 | 107.1        | 8.9  |
| 5 x 5   | 4.4         | 4.4    | 45.6         | 3.8  |
| 6 x 6   | 5.4         | 5.4    | 59.6         | 5    |
| 6 x 8   | 5.4         | 7.4    | 81.2         | 6.8  |
| 6 x 12  | 5.4         | 11.3   | 122.6        | 10.2 |
| 8 x 8   | 7.3         | 7.3    | 87.9         | 7.3  |
| 8 x 10  | 7.3         | 9.3    | 111.1        | 9.3  |
| 10 x 10 | 9.8         | 9.8    | 127.3        | 10.6 |

# **FIBERFORCE® PLASTIC LUMBER**

## **SPAN TABLES JOIST 120° DEGREE F**

**16" CENTER DISTANCE**

**60 LBS/SQ FOOT LIVE LOAD**

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 30.4         | 2.5  |
| 5/4 x6  | 1.1         | 5.4    | 46.8         | 3.9  |
| 5/4 x 8 | 1.1         | 7.3    | 63.1         | 5.3  |
| 2 x 4   | 1.5         | 3.5    | 33.7         | 2.8  |
| 2 x 6   | 1.5         | 5.4    | 51.8         | 4.3  |
| 2 x 8   | 1.5         | 7.3    | 69.7         | 5.8  |
| 2 x 10  | 1.5         | 9.25   | 88           | 7.3  |
| 2 x 12  | 1.5         | 11.3   | 108.7        | 9.1  |
| 3 x 4   | 2.4         | 3.4    | 38.1         | 3.2  |
| 3 x 6   | 2.4         | 5.5    | 61.2         | 5.1  |
| 3 x 8   | 2.4         | 7.4    | 81.9         | 6.8  |
| 3 x 10  | 2.4         | 9.3    | 102.3        | 8.5  |
| 3 x 12  | 2.4         | 11.3   | 123.6        | 10.3 |
| 4 x 4   | 3.4         | 3.4    | 42.6         | 3.6  |
| 4 x 6   | 3.4         | 5.4    | 67.1         | 5.6  |
| 4 x 8   | 3.4         | 7.5    | 92.3         | 7.7  |
| 4 x 12  | 3.4         | 11.375 | 136.3        | 11.4 |
| 5 x 5   | 4.4         | 4.4    | 59.5         | 5    |
| 6 x 6   | 5.4         | 5.4    | 77.2         | 6.4  |
| 6 x 8   | 5.4         | 7.4    | 104.4        | 8.7  |
| 6 x 12  | 5.4         | 11.3   | 155.6        | 13   |
| 8 x 8   | 7.3         | 7.3    | 112.1        | 9.3  |
| 8 x 10  | 7.3         | 9.3    | 140.5        | 11.7 |
| 10 x 10 | 9.8         | 9.8    | 158.7        | 13.2 |

**100 LBS/SQ FOOT LIVE LOAD**

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 26.1         | 2.2  |
| 5/4 x6  | 1.1         | 5.4    | 40.2         | 3.3  |
| 5/4 x 8 | 1.1         | 7.3    | 54.2         | 4.5  |
| 2 x 4   | 1.5         | 3.5    | 28.9         | 2.4  |
| 2 x 6   | 1.5         | 5.4    | 44.5         | 3.7  |
| 2 x 8   | 1.5         | 7.3    | 60           | 5    |
| 2 x 10  | 1.5         | 9.25   | 75.8         | 6.3  |
| 2 x 12  | 1.5         | 11.3   | 92.4         | 7.7  |
| 3 x 4   | 2.4         | 3.4    | 32.8         | 2.7  |
| 3 x 6   | 2.4         | 5.5    | 52.8         | 4.4  |
| 3 x 8   | 2.4         | 7.4    | 70.7         | 5.9  |
| 3 x 10  | 2.4         | 9.3    | 88.5         | 7.4  |
| 3 x 12  | 2.4         | 11.3   | 107.2        | 8.9  |
| 4 x 4   | 3.4         | 3.4    | 36.7         | 3.1  |
| 4 x 6   | 3.4         | 5.4    | 57.9         | 4.8  |
| 4 x 8   | 3.4         | 7.5    | 80           | 6.7  |
| 4 x 12  | 3.4         | 11.375 | 118.7        | 9.9  |
| 5 x 5   | 4.4         | 4.4    | 51.4         | 4.3  |
| 6 x 6   | 5.4         | 5.4    | 67           | 5.6  |
| 6 x 8   | 5.4         | 7.4    | 91           | 7.6  |
| 6 x 12  | 5.4         | 11.3   | 136.7        | 11.4 |
| 8 x 8   | 7.3         | 7.3    | 98.2         | 8.2  |
| 8 x 10  | 7.3         | 9.3    | 123.8        | 10.3 |
| 10 x 10 | 9.8         | 9.8    | 141          | 11.8 |

# **FIBERFORCE® PLASTIC LUMBER**

## **SPAN TABLES JOIST 120° DEGREE F**

**16" CENTER DISTANCE**

### 150 LBS/SQ FOOT LIVE LOAD

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 23           | 1.9  |
| 5/4 x6  | 1.1         | 5.4    | 35.4         | 3    |
| 5/4 x 8 | 1.1         | 7.3    | 47.8         | 4    |
| 2 x 4   | 1.5         | 3.5    | 25.5         | 2.1  |
| 2 x 6   | 1.5         | 5.4    | 39.2         | 3.3  |
| 2 x 8   | 1.5         | 7.3    | 53           | 4.4  |
| 2 x 10  | 1.5         | 9.25   | 67           | 5.6  |
| 2 x 12  | 1.5         | 11.3   | 81.7         | 6.8  |
| 3 x 4   | 2.4         | 3.4    | 28.9         | 2.4  |
| 3 x 6   | 2.4         | 5.5    | 46.6         | 3.9  |
| 3 x 8   | 2.4         | 7.4    | 62.5         | 5.2  |
| 3 x 10  | 2.4         | 9.3    | 78.4         | 6.5  |
| 3 x 12  | 2.4         | 11.3   | 95           | 7.9  |
| 4 x 4   | 3.4         | 3.4    | 32.4         | 2.7  |
| 4 x 6   | 3.4         | 5.4    | 51.2         | 4.3  |
| 4 x 8   | 3.4         | 7.5    | 70.9         | 5.9  |
| 4 x 12  | 3.4         | 11.375 | 105.5        | 8.8  |
| 5 x 5   | 4.4         | 4.4    | 45.5         | 3.8  |
| 6 x 6   | 5.4         | 5.4    | 59.4         | 5    |
| 6 x 8   | 5.4         | 7.4    | 80.9         | 6.7  |
| 6 x 12  | 5.4         | 11.3   | 122.2        | 10.2 |
| 8 x 8   | 7.3         | 7.3    | 87.6         | 7.3  |
| 8 x 10  | 7.3         | 9.3    | 110.8        | 9.2  |
| 10 x 10 | 9.8         | 9.8    | 126.9        | 10.6 |

### 200 LBS/SQ FOOT LIVE LOAD

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |     |
|---------|-------------|--------|--------------|-----|
|         | WIDTH       | HEIGHT | INCHES       | FT  |
| 5/4 X 4 | 1.1         | 3.5    | 21           | 1.7 |
| 5/4 x6  | 1.1         | 5.4    | 32.3         | 2.7 |
| 5/4 x 8 | 1.1         | 7.3    | 43.7         | 3.6 |
| 2 x 4   | 1.5         | 3.5    | 23.3         | 1.9 |
| 2 x 6   | 1.5         | 5.4    | 35.8         | 3   |
| 2 x 8   | 1.5         | 7.3    | 48.4         | 4   |
| 2 x 10  | 1.5         | 9.25   | 61.2         | 5.1 |
| 2 x 12  | 1.5         | 11.3   | 74.7         | 6.2 |
| 3 x 4   | 2.4         | 3.4    | 26.4         | 2.2 |
| 3 x 6   | 2.4         | 5.5    | 42.6         | 3.5 |
| 3 x 8   | 2.4         | 7.4    | 57.2         | 4.8 |
| 3 x 10  | 2.4         | 9.3    | 71.7         | 6   |
| 3 x 12  | 2.4         | 11.3   | 87           | 7.2 |
| 4 x 4   | 3.4         | 3.4    | 29.6         | 2.5 |
| 4 x 6   | 3.4         | 5.4    | 46.9         | 3.9 |
| 4 x 8   | 3.4         | 7.5    | 63.2         | 5.3 |
| 4 x 12  | 3.4         | 11.375 | 96.8         | 8.1 |
| 5 x 5   | 4.4         | 4.4    | 41.6         | 3.5 |
| 6 x 6   | 5.4         | 5.4    | 54.4         | 4.5 |
| 6 x 8   | 5.4         | 7.4    | 74.2         | 6.2 |
| 6 x 12  | 5.4         | 11.3   | 112.3        | 9.4 |
| 8 x 8   | 7.3         | 7.3    | 80.5         | 6.7 |
| 8 x 10  | 7.3         | 9.3    | 101.9        | 8.5 |
| 10 x 10 | 9.8         | 9.8    | 117.1        | 9.8 |

# **FIBERFORCE® PLASTIC LUMBER**

## **SPAN TABLES JOIST 120° DEGREE F**

**24" CENTER DISTANCE**

### 60 LBS/SQ FOOT LIVE LOAD

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 26.6         | 2.2  |
| 5/4 x6  | 1.1         | 5.4    | 41.8         | 3.5  |
| 5/4 x 8 | 1.1         | 7.3    | 55.3         | 4.6  |
| 2 x 4   | 1.5         | 3.5    | 29.5         | 2.5  |
| 2 x 6   | 1.5         | 5.4    | 45.4         | 3.8  |
| 2 x 8   | 1.5         | 7.3    | 61.2         | 5.1  |
| 2 x 10  | 1.5         | 9.25   | 77.3         | 6.4  |
| 2 x 12  | 1.5         | 11.3   | 94.2         | 7.9  |
| 3 x 4   | 2.4         | 3.4    | 33.4         | 2.8  |
| 3 x 6   | 2.4         | 5.5    | 53.8         | 4.5  |
| 3 x 8   | 2.4         | 7.4    | 72.1         | 6    |
| 3 x 10  | 2.4         | 9.3    | 90.3         | 7.5  |
| 3 x 12  | 2.4         | 11.3   | 109.2        | 9.1  |
| 4 x 4   | 3.4         | 3.4    | 37.4         | 3.1  |
| 4 x 6   | 3.4         | 5.4    | 59.1         | 4.9  |
| 4 x 8   | 3.4         | 7.5    | 81.5         | 6.8  |
| 4 x 12  | 3.4         | 11.375 | 121.5        | 10.1 |
| 5 x 5   | 4.4         | 4.4    | 52.4         | 4.4  |
| 6 x 6   | 5.4         | 5.4    | 68.3         | 5.7  |
| 6 x 8   | 5.4         | 7.4    | 92.7         | 7.7  |
| 6 x 12  | 5.4         | 11.3   | 139.2        | 11.6 |
| 8 x 8   | 7.3         | 7.3    | 100          | 8.3  |
| 8 x 10  | 7.3         | 9.3    | 125.9        | 10.5 |
| 10 x 10 | 9.8         | 9.8    | 143.3        | 11.9 |

### 100 LBS/SQ FOOT LIVE LOAD

| SIZE    | ACTUAL SIZE |        | MAXIMUM SPAN |      |
|---------|-------------|--------|--------------|------|
|         | WIDTH       | HEIGHT | INCHES       | FT   |
| 5/4 X 4 | 1.1         | 3.5    | 22.8         | 1.9  |
| 5/4 x6  | 1.1         | 5.4    | 35.8         | 3    |
| 5/4 x 8 | 1.1         | 7.3    | 47.5         | 4    |
| 2 x 4   | 1.5         | 3.5    | 25.3         | 2.1  |
| 2 x 6   | 1.5         | 5.4    | 38.9         | 3.2  |
| 2 x 8   | 1.5         | 7.3    | 52.6         | 4.4  |
| 2 x 10  | 1.5         | 9.25   | 66.5         | 5.5  |
| 2 x 12  | 1.5         | 11.3   | 81.1         | 6.8  |
| 3 x 4   | 2.4         | 3.4    | 28.7         | 2.4  |
| 3 x 6   | 2.4         | 5.5    | 46.3         | 3.9  |
| 3 x 8   | 2.4         | 7.4    | 62.1         | 5.2  |
| 3 x 10  | 2.4         | 9.3    | 77.8         | 6.5  |
| 3 x 12  | 2.4         | 11.3   | 94.3         | 7.9  |
| 4 x 4   | 3.4         | 3.4    | 32.2         | 2.7  |
| 4 x 6   | 3.4         | 5.4    | 50.9         | 4.2  |
| 4 x 8   | 3.4         | 7.5    | 70.4         | 5.9  |
| 4 x 12  | 3.4         | 11.375 | 105.3        | 8.8  |
| 5 x 5   | 4.4         | 4.4    | 45.1         | 3.8  |
| 6 x 6   | 5.4         | 5.4    | 59           | 4.9  |
| 6 x 8   | 5.4         | 7.4    | 80.4         | 6.7  |
| 6 x 12  | 5.4         | 11.3   | 121.3        | 10.1 |
| 8 x 8   | 7.3         | 7.3    | 87           | 7.3  |
| 8 x 10  | 7.3         | 9.3    | 110          | 9.2  |
| 10 x 10 | 9.8         | 9.8    | 126.1        | 10.5 |

# **FIBERFORCE® PLASTIC LUMBER**

## **SPAN TABLES JOIST 120° DEGREE F**

**24" CENTER DISTANCE**

**150 LBS/SQ FOOT LIVE LOAD**

**200 LBS/SQ FOOT LIVE LOAD**

| 150 LBS/SQ FOOT LIVE LOAD |             |        |              |     | 200 LBS/SQ FOOT LIVE LOAD |             |        |              |     |
|---------------------------|-------------|--------|--------------|-----|---------------------------|-------------|--------|--------------|-----|
| SIZE                      | ACTUAL SIZE |        | MAXIMUM SPAN |     | SIZE                      | ACTUAL SIZE |        | MAXIMUM SPAN |     |
|                           | WIDTH       | HEIGHT | INCHES       | FT  |                           | WIDTH       | HEIGHT | INCHES       | FT  |
| 5/4 X 4                   | 1.1         | 3.5    | 20.1         | 1.7 | 5/4 X 4                   | 1.1         | 3.5    | 18.3         | 1.5 |
| 5/4 x6                    | 1.1         | 5.4    | 31.6         | 2.6 | 5/4 x6                    | 1.1         | 5.4    | 28.8         | 2.4 |
| 5/4 x 8                   | 1.1         | 7.3    | 41.9         | 3.5 | 5/4 x 8                   | 1.1         | 7.3    | 38.2         | 3.2 |
| 2 x 4                     | 1.5         | 3.5    | 22.3         | 1.9 | 2 x 4                     | 1.5         | 3.5    | 20.3         | 1.7 |
| 2 x 6                     | 1.5         | 5.4    | 34.3         | 2.9 | 2 x 6                     | 1.5         | 5.4    | 31.3         | 2.6 |
| 2 x 8                     | 1.5         | 7.3    | 46.4         | 3.9 | 2 x 8                     | 1.5         | 7.3    | 42.3         | 3.5 |
| 2 x 10                    | 1.5         | 9.25   | 58.7         | 4.9 | 2 x 10                    | 1.5         | 9.25   | 53.6         | 4.5 |
| 2 x 12                    | 1.5         | 11.3   | 71.6         | 6   | 2 x 12                    | 1.5         | 11.3   | 65.4         | 5.5 |
| 3 x 4                     | 2.4         | 3.4    | 25.3         | 2.1 | 3 x 4                     | 2.4         | 3.4    | 23.1         | 1.9 |
| 3 x 6                     | 2.4         | 5.5    | 40.8         | 3.4 | 3 x 6                     | 2.4         | 5.5    | 37.3         | 3.1 |
| 3 x 8                     | 2.4         | 7.4    | 54.8         | 4.6 | 3 x 8                     | 2.4         | 7.4    | 50.1         | 4.2 |
| 3 x 10                    | 2.4         | 9.3    | 68.8         | 5.7 | 3 x 10                    | 2.4         | 9.3    | 62.9         | 5.2 |
| 3 x 12                    | 2.4         | 11.3   | 83.4         | 7   | 3 x 12                    | 2.4         | 11.3   | 76.3         | 6.4 |
| 4 x 4                     | 3.4         | 3.4    | 28.4         | 2.4 | 4 x 4                     | 3.4         | 3.4    | 25.9         | 2.2 |
| 4 x 6                     | 3.4         | 5.4    | 44.9         | 3.7 | 4 x 6                     | 3.4         | 5.4    | 41           | 3.4 |
| 4 x 8                     | 3.4         | 7.5    | 61.4         | 5.1 | 4 x 8                     | 3.4         | 7.5    | 55.4         | 4.6 |
| 4 x 12                    | 3.4         | 11.375 | 93.3         | 7.8 | 4 x 12                    | 3.4         | 11.375 | 85.4         | 7.1 |
| 5 x 5                     | 4.4         | 4.4    | 39.9         | 3.3 | 5 x 5                     | 4.4         | 4.4    | 36.4         | 3   |
| 6 x 6                     | 5.4         | 5.4    | 52.2         | 4.3 | 6 x 6                     | 5.4         | 5.4    | 47.7         | 4   |
| 6 x 8                     | 5.4         | 7.4    | 71.2         | 5.9 | 6 x 8                     | 5.4         | 7.4    | 65.2         | 5.4 |
| 6 x 12                    | 5.4         | 11.3   | 107.9        | 9   | 6 x 12                    | 5.4         | 11.3   | 99           | 8.2 |
| 8 x 8                     | 7.3         | 7.3    | 77.3         | 6.4 | 8 x 8                     | 7.3         | 7.3    | 70.8         | 5.9 |
| 8 x 10                    | 7.3         | 9.3    | 98.0         | 8.2 | 8 x 10                    | 7.3         | 9.3    | 89.9         | 7.5 |
| 10 x 10                   | 9.8         | 9.8    | 112.7        | 9.4 | 10 x 10                   | 9.8         | 9.8    | 103.7        | 8.6 |

## **FIBERFORCE® RECYCLED PLASTIC LUMBER SIZE CHART**

| <b>LUMBER SIZE</b> | <b>ACTUAL DIMENSIONS</b> | <b>LONGEST LENGTHS AVAILABLE— FEET</b> | <b>WEIGHT LBS PER FOOT</b> |
|--------------------|--------------------------|--|----------------------------|
| 2 1/2" Round       | 2.25" Diameter           | 8                                      | 1.8                        |
| 4" Round           | 3.9" Diameter            | 12                                     | 4.8                        |
| 10" Round          | 9.8" Diameter            | 24                                     | 28.3                       |
| 5/4" x 4"          | 1.1" x 3 1/2"            | 12                                     | 1.5                        |
| 5/4" x 6"          | 1.1" x 5 1/2"            | 12                                     | 2.3                        |
| 5/4" x 8"          | 1.1" x 7 1/2"            | 12                                     | 3.1                        |
| 2" x 2"            | 1 1/2" x 1 1/2"          | 8                                      | 1                          |
| 2" x 3"            | 1 1/2" x 2 1/2"          | 8                                      | 1.6                        |
| 2" x 4" Bull Nose  | 1 1/2" x 3 1/2"          | 16/12                                  | 2.2                        |
| 2" x 6"            | 1 1/2" x 5 1/2"          | 16                                     | 3.5                        |
| 2" x 8"            | 1 1/2" x 7 1/2"          | 20                                     | 4.2                        |
| 2" x 10"           | 1 1/2" x 9 3/8"          | 16                                     | 5.4                        |
| 2" x 12'           | 1 1/2" x 11 1/4"         | 16                                     | 6.5                        |
| 3" x 4" Bull Nose  | 2 1/2" x 3 1/2"          | 16                                     | 3.4                        |
| 3" x 6"            | 2 1/2" x 5 1/2"          | 12                                     | 5.1                        |
| 3" x 8" Bull Nose  | 2 1/2" x 7 1/2"          | 12/16                                  | 7                          |
| 3" x 10"           | 2 1/2" x 9 3/8"          | 16                                     | 8.9                        |
| 3" x 12"           | 2 1/2" x 11 1/4"         | 16                                     | 10.8                       |
| 4" x 4"            | 3 1/2" x 3 1/2"          | 16                                     | 4.8                        |
| True 4" x 4"       | 4" x 4"                  | 16                                     | 5.9                        |
| 4' x 6"            | 3 1/2" x 5 1/2"          | 20                                     | 7.2                        |
| 4" x 8"            | 3 1/2" x 7 1/2"          | 16                                     | 9.8                        |
| 4" x 12"           | 3 1/2" x 11 1/4"         | 20                                     | 15                         |
| 5' x 5"            | 4 1/2" x 4 1/2"          | 16                                     | 7.6                        |
| 6" x 6"            | 5 1/2" x 5 1/2"          | 20                                     | 11.5                       |
| 6" x 8"            | 5 1/2" x 7 1/2"          | 20                                     | 16                         |
| 6" x 10"           | 5 1/2" x 9 3/8"          | 20                                     | 21                         |
| 6" x 12'           | 5 1/2" x 11 1/4"         | 20                                     | 25                         |
| 8" x 8"            | 7 1/2" x 7 1/2"          | 24                                     | 22                         |
| 8" x 10"           | 7 1/2" x 9 3/8"          | 18                                     | 28                         |
| 8" x 12"           | 7 1/2" x 11 3/8"         | 24                                     | 33                         |
| 10" x 10"          | 9 3/4" x 9 3/4"          | 20                                     | 40                         |
| 10" x 12"          | 9.8" x 11.8"             | 24                                     | 48                         |
| 12" x 12"          | 11.9" x 11.9"            | 24                                     | 56                         |
| 12" x 16"          | 11.8" x 15.7"            | 24                                     | 77                         |

# **FIBERFORCE® PLASTIC PRODUCT 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®.

## **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 (0.000061 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 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.

| <b>Temperature at time of installation</b> | <b>Gap between butt ends</b> |
|--|------------------------------|
| Greater then or equal to 90° F (32° C)     | 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. In the event that rip cutting is needed please refer to the following example. Example, if a 4" (10cm) board is needed, 3/4" (2cm) should be ripped off of both sides of a 5-1/2" (14cm) board.

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



# BEDFORD

TECHNOLOGY

2424 ARMOUR ROAD  
WORTHINGTON, MN 56187  
1-800-721-9037  
WEBSITE [WWW.PLASTICBOARDS.COM](http://WWW.PLASTICBOARDS.COM)