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FIBERFORCE® HTP PLASTIC LUMBER PRODCUTS

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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 ²
Flexural Modulus Secant @ 1% strain	D6109	306080	PSI	21520	Kg/cm ²
Compression Strength Parallel to grain	D6108	2842	PSI	200	Kg/cm ²
Compression Strength Perpendicular to grain	D6108	1482	PSI	104	Kg/cm ²
Compression Modulus Strength Parallel to grain—Secant at 1% strain	D6108	159576	PSI	11219	Kg/cm ²
Compression Modulus Strength Perpendicular to grain—Secant at 1% strain	D6108	54119	PSI	3804	Kg/cm ²
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 ²
Shear Strength	D2344	800	PSI	56	Kg/cm ²
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

LUMBER SIZE	ACTUAL DIMENSIONS	LONGEST LENGTHS AVAILABLE-- FEET	WEIGHT LBS PER FOOT
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.

Temperature at time of installation	Gap between butt ends
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