Plastic Lumber Yard, LLC
227 Isabella St.
Plymouth Meeting, PA 19462
(610) 277-3900
www.plasticlumberyard.com

Technical Data Molded Grade Plastic Lumber

English Units				Metric Units	
TEST	ASTM TEST	VALUE	UNITS	VALUE	UNITS
Flexural Strength	D6109-97	1355	PSI	95	KG/CM²
Flexural Modulus	D6109-97	95939	PSI	6744	KG/CM²
Compression Strength	D6108-97	1420	PSI	100	KG/CM²
Compression Modulus	D6108-97	51000	PSI	3585	KG/CM²
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 Nail Pull Out	D6117-97	504	Lbs.		
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			

Notes:

- **THIS DATA REPRESENTS AVERAGE VALUES NOT MINIMUMS. SAFETY FACTORS MUST BE ADDED INTO THE DESIGN**.
- Testing conducted by Battelle of Columbus, OH
- Warnock Hershey Certified for ASTM D6662-01 by Intertek Testing Services NA Ltd. of Coquitlam,BC.
- For further information on our ASTM standards please contact your Plastic Lumber Yard representative.
- For further information on Intertek Testing Services NA Ltd. and the Warnock Hershey certification, please contact ITS at: www.ETLSemko.com
- For Further information and their processes please contact ASTM at: www.astm.org

Chemical Resistance

Since high density polyethylene has a high resistance to most acids and chemicals, Plastic Lumber is not affected by exposure to most substances.

Ultraviolet Weathering

An ultraviolet stabilizer is incorporated at the time of manufacture. It protects the plastic from ultraviolet light degradation and ensures that the outside of the product will not degrade in exterior applications.

Molded Grade Plastic Lumber Span Table Joist Mode- 78° F

JOIST MODE 78° F – LIMITED DEFLECTION 12″ CENTER DISTANCE FOR JOIST

60 Lbs./Sq Foot Dynamic Load. 12″ Center distance for joist. 78° F – Limited Deflection

ACTUAL SIZE			MAXIMUM SPAN	
SIZE	WIDTH	HEIGHT	INCHES	FEET
2×6	1.5	5.4	67.4	5.6
2×8	1.5	7.3	91.2	7.6
2×10	1.5	9.25	115.5	9.6
2×12	1.5	11.3	141.1	11.8
3×4	2.4	3.4	49.7	4.1
3×6	2.4	5.5	80.3	6.7
3×8	2.4	7.4	105.7	8.8
3×10	2.4	9.3	131.8	11.0
3×12	2.4	11.3	158.9	13.2
4×4	3.4	3.4	55.8	4.6
4×6	3.4	5.4	88.6	7.4
5×5	4.4	4.4	78.7	6.6
6×6	5.4	5.4	103.4	8.6
6×12	5.4	11.3	197.9	16.5

150 Lbs./Sq Foot Dynamic Load. 12″ Center distance for joist. 78° F – Limited Deflection

ACTUAL SIZE			MAXIMUM SPAN	
SIZE	WIDTH	HEIGHT	INCHES	FEET
2×6	1.5	5.4	50.8	4.2
2×8	1.5	7.3	68.7	5.7
2×10	1.5	9.25	87.0	7.3
2×12	1.5	11.3	106.3	8.9
3×4	2.4	3.4	37.4	3.1
3×6	2.4	5.5	60.5	5.0
3×8	2.4	7.4	81.0	6.8
3×10	2.4	9.3	101.5	8.5
3×12	2.4	11.3	122.8	10.2
4×4	3.4	3.4	42.0	3.5
4×6	3.4	5.4	66.7	5.6
5×5	4.4	4.4	59.3	4.9
6×6	5.4	5.4	77.9	6.5
6×12	5.4	11.3	157.1	13.1

100 Lbs./Sq Foot Dynamic Load. 12″ Center distance for joist. 78° F – Limited Deflection

ACTUAL SIZE			MAXIMUM SPAN	
SIZE	WIDTH	HEIGHT	INCHES	FEET
2×6	1.5	5.4	57.7	4.8
2×8	1.5	7.3	78.0	6.5
2×10	1.5	9.25	98.9	8.2
2×12	1.5	11.3	120.8	10.1
3×4	2.4	3.4	42.5	3.5
3×6	2.4	5.5	68.8	5.7
3×8	2.4	7.4	91.5	7.6
3×10	2.4	9.3	114.4	9.5
3×12	2.4	11.3	138.3	11.5
4×4	3.4	3.4	47.7	4.0
4×6	3.4	5.4	75.8	6.3
5×5	4.4	4.4	67.3	5.6
6×6	5.4	5.4	88.5	7.4
6×12	5.4	11.3	175.1	14.6

200 Lbs./Sq Foot Dynamic Load. 12″ Center distance for joist. 78° F – Limited Deflection

ACTUAL SIZE			MAXIMUM SPAN	
SIZE	WIDTH	HEIGHT	INCHES	FEET
2×6	1.5	5.4	46.3	3.9
2×8	1.5	7.3	62.6	5.2
2×10	1.5	9.25	79.4	6.6
2×12	1.5	11.3	97.0	8.1
3×4	2.4	3.4	34.1	2.8
3×6	2.4	5.5	55.2	4.6
3×8	2.4	7.4	74.1	6.2
3×10	2.4	9.3	92.9	7.7
3×12	2.4	11.3	112.6	9.4
4×4	3.4	3.4	38.3	3.2
4×6	3.4	5.4	60.9	5.1
5×5	4.4	4.4	54.1	4.5
6×6	5.4	5.4	71.0	5.9
6×12	5.4	11.3	144.8	12.1

Molded Grade Plastic Lumber Span Table - 122° F

Chart for Ambient 122° F For use with DYNAMIC LOAD ONLY: For STATIC LOADS please contact us.

DECKING MODE 60 Lbs. DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	17.3	1.4
2×6,8,10,12	1.5	23.1	1.9
3×4,6,8,10	2.4	37.0	3.1
4×4,6	3.4	52.4	4.4
5×5	4.4	67.8	5.7
6×6,12	5.4	83.3	6.9

DECKING MODE 150 Lbs. DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	13.1	1.1
2×6,8,10,12	1.5	17.4	1.5
3×4,6,8,10	2.4	27.8	2.3
4×4,6	3.4	39.4	3.3
5×5	4.4	51.0	4.3
6×6,12	5.4	62.6	5.2

100 Lbs./Sq FOOT DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	14.8	1.2
2×6,8,10,12	1.5	19.8	1.6
3×4,6,8,10	2.4	31.6	2.6
4×4,6	3.4	44.8	3.7
5×5	4.4	58.0	4.8
6×6,12	5.4	71.2	5.9

200 Lbs./Sq FOOT DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	11.9	1.0
2×6,8,10,12	1.5	15.9	1.3
3×4,6,8,10	2.4	25.4	2.1
4×4,6	3.4	36.0	3.0
5×5	4.4	46.5	3.9
6×6,12	5.4	57.1	4.8

Molded Grade Plastic Lumber Span Table - 78° F

Chart for Ambient 78° F For use with DYNAMIC LOAD ONLY: For STATIC LOADS please contact us.

DECKING MODE 60 Lbs. DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	20.0	1.7
2×6,8,10,12	1.5	26.7	2.2
3×4,6,8,10	2.4	42.7	3.6
4×4,6	3.4	60.5	5.0
5×5	4.4	78.3	6.5
6×6,12	5.4	96.1	8.0

DECKING MODE 150 Lbs. DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	14.9	1.2
2×6,8,10,12	1.5	19.7	1.6
3×4,6,8,10	2.4	31.3	2.6
4×4,6	3.4	44	3.7
5×5	4.4	56.4	4.7
6×6,12	5.4	68.6	5.7

100 Lbs./Sq FOOT DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	16.9	1.4
2×6,8,10,12	1.5	22.4	1.9
3×4,6,8,10	2.4	35.5	3.0
4×4,6	3.4	49.6	4.1
5×5	4.4	63.3	5.3
6×6,12	5.4	76.8	6.4

200 Lbs./Sq FOOT DYNAMIC LOAD

	ACTUAL SIZE	MAXIMUM SPAN	
SIZE	THICKNESS	INCHES	FEET
5/4 X 4,6	1.125	13.5	1.1
2×6,8,10,12	1.5	18	1.5
3×4,6,8,10	2.4	28.6	2.4
4×4,6	3.4	40.3	3.4
5×5	4.4	51.7	4.3
6×6,12	5.4	63.1	5.3