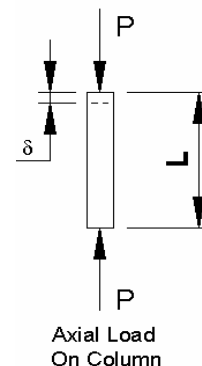


TRIMAX BUILDING PRODUCTS STRUCTURAL POST LOAD TABLE
AXIALLY LOADED PINNED END POST FOR FLOOR LOADING

Temperature Adjustment Factors

Temperature	73°F	90°F	100°F	110°F	120°F
For Deflection	1.334	1.000	0.844	0.712	0.601
Temp. Adj. Compressive Modulus Of Elasticity (90°F) =	74,948 psi				
Temperature Adjusted Compressive Strength (90°F) =	1,500 psi				
Temp. Adjusted Allowable Compressive Stress (90°F) =	1,000 psi				



Nominal Size	4 X 4	4 X 6	6 X 6	10 X 10
Thickness (in)	3.5	3.5	5.5	9.25
Depth (in)	3.5	5.5	5.5	9.25
Agross (in²)	12.20	19.20	30.20	85.51
A[t=1.75] (in²)	12.20	19.20	26.20	52.45

ALLOWABLE AXIAL LOAD IN POUNDS FOR GIVEN UNBRACED HEIGHT

UNBRACED HEIGHT (ft)	4.0	4,800	7,500	10,000	20,500
	5.0	3,800	6,000	8,200	16,400
	6.0	3,400 @ L=5.50'	2,500	6,800	13,600
	7.0	L/r > 50	L/r > 50	5,800	11,700
	8.0			5,100	10,200
	9.0			4,000	9,100
	10.0			L/r > 50	8,200
	11.0				7,400
	12.0				6,800
	13.0				6,300
	14.0				5,800
	15.0				5,500

Notes:

1. Table gives load values temperature adjusted to 90°F. Because elastic shortening of the post controls design, 90°F values are considered conservative. However, to determine higher temperature allowable loads, multiply table allowable load by the adjustment values listed.
2. Allowable compressive stress is the temperature adjusted compressive stress divided by a factor of safety of 1.50. However, this stress will generally not influence design.
3. Although Trimax lumber is manufactured as a solid element, the density of the cross-section decreases toward its center. The above calculations assume the maximum effective dense skin thickness is 1.75".
4. In the above table allowable load is controlled by deflection criteria. Elastic shortening of the post ($\delta = PL/AE$) is limited to 0.25 inches at 90°F. To determine loads for other δ 's, multiply table by desired value divided by 0.25. The effective skin thickness for all δ calculations is 1.75 inches.
5. Load duration factor (Cd) for the table is 1.0 and is appropriate for typical floor loading. Cd is an adjustment factor to limit long term creep. The adjustment factor for permanent Load (30 years) is 0.91.
6. The table follows the recommendations in the proposed ASTM specification for structural grade plastic lumber. At present the specification only addresses posts with an $L/r < 50$. At this level, buckling is not considered to influence design. To extend these recommendations, a reduced skin thickness was considered and loads were evaluated assuming a hollow cross-section.