

Nordic X-Lam Sizing

L/240, TL DEFLECTION CRITERIA - Panel thickness (in.)

TL (psf)	Simple Span							Double Span						
	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft
40		3 1/8		4 1/8	5 1/8				3 1/8		4 1/8	5 1/8		5 1/8
50			4 1/8				6 7/8		3 1/8		4 1/8			
60	3 1/8													
70					5 1/8							5 1/8		
80						6 7/8		3 1/8		4 1/8				
90		4 1/8												6 7/8
100														
110			5 1/8			6 7/8						5 1/8		
120							8 5/8	4 1/8						
130	4 1/8			6 7/8								6 7/8		
140														
150		5 1/8	6 7/8					4 1/8		5 1/8	6 7/8			
160					8 5/8								8 5/8	

L/360, LL DEFLECTION CRITERIA - Panel thickness (in.)

LL (psf)	Simple Span							Double Span						
	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft	10 ft	12 ft	14 ft	16 ft	18 ft	20 ft	22 ft
40					5 1/8		6 7/8		3 1/8		4 1/8	5 1/8		5 1/8
50	3 1/8		4 1/8	5 1/8					3 1/8	4 1/8				
60		4 1/8				6 7/8				4 1/8				6 7/8
70			5 1/8											
80					6 7/8		8 5/8							
90														
100														
110	4 1/8			6 7/8										
120		5 1/8				8 5/8								
130			6 7/8											
140					8 5/8		9 5/8	4 1/8			6 7/8			
150													8 5/8	
160	5 1/8	6 7/8		8 5/8		9 5/8			5 1/8	6 7/8		8 5/8		9 5/8

Notes:

- Sizing (panel thickness shown in inches) based on « E1 » stress grade and the correspondance below. The product designation refers to the panel thickness (in mm), the number of layers, and the layup combination ("s" for standard cross layers, and "l" for doubled outermost longitudinal layers). → 78-3s (3-1/8 in.), 105-3s (4-1/8 in.), 131-5s (5-1/8 in.), 175-5s (6-7/8 in.), 220-7s (8-5/8 in.), 244-7l (9-5/8 in.), and 314-9l (12-3/8 in.)
- For preliminary design use only. The design is based on NDS-2012 and the CLT Manual, U.S. Edition. Final design shall include a complete analysis including the verification of the bearing capacity, a consideration for floor vibration if applicable, and fire safety requirements.
- Tables are based on uniform loads, dry-use conditions and normal duration of loading, for bending about the longitudinal axis of the panel. Span is measured center to center of supports.
- The loads indicated above are the uniform design total load (TL) or live load (LL). The panels weight is not considered and shall be included in the design total load calculation.
- Maximum deflection = L/240 under total load or L/360 under live load. Other deflection limits may apply. A time dependent deformation (creep) factor, K_{cr} , of 2.0 is recommended when checking the permanent deformation in order to account for creep effects.