

Nordic X-Lam Sizing

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

TL (kPa)	Simple Span							Multiple Span						
	3,0 m	3,5 m	4,0 m	4,5 m	5,0 m	5,5 m	6,0 m	3,0 m	3,5 m	4,0 m	4,5 m	5,0 m	5,5 m	6,0 m
2,0	105		105	105	105	175	175	105		105	105	105	105	175
2,5				105	105						105			
3,0				105	105						105			
3,5				105	105						105			
4,0				105	105						105			
4,5		175	175	175	175									
5,0		175	175	175	175									
5,5		175	175	175	175									
6,0		175	175	175	175									
6,5		175	175	175	175									
7,0	175	175	175	175	245	245	175	175	175	175	175	175	245	
7,5	175	175	175	175	245	245	175	175	175	175	175	175	175	245
8,0	175	175	175	175	245	245	175	175	175	175	175	175	175	245

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

LL (kPa)	Simple Span							Multiple Span						
	3,0 m	3,5 m	4,0 m	4,5 m	5,0 m	5,5 m	6,0 m	3,0 m	3,5 m	4,0 m	4,5 m	5,0 m	5,5 m	6,0 m
2,0	105		105	105	105	175	175	105		105	105	105	105	175
2,5				105	105						105			
3,0				105	105						105			
3,5				105	105						105			
4,0				105	105						105			
4,5		175	175	175	175									
5,0		175	175	175	175									
5,5		175	175	175	175									
6,0		175	175	175	175									
6,5		175	175	175	175									
7,0	175	175	175	175	245	245	175	175	175	175	175	175	245	
7,5	175	175	175	175	245	245	175	175	175	175	175	175	175	245
8,0	175	175	175	175	245	245	175	175	175	175	175	175	175	245

Notes:

- Sizing (panel thickness shown in millimetres) based on « Standard » grade layout and according to CSA O86-09.
105 mm (4-1/8 in.) = 3 layers (105-3s), 175 mm (6-7/8 in.) = 5 layers (175-5s), and 245 mm (9-5/8 in.) = 7 layers (245-7s)
- For preliminary design use only. Final design shall include a complete analysis including the verification of the bearing resistance, and a consideration for the effect of floor vibrations when applicable.
- Tables are based on uniform loads, dry-use conditions and standard term load duration, for bending about the longitudinal axis of the panel. Span is measured centre to centre of supports.
- The loads indicated above are the uniform specified (service) total load (TL) or live load (LL). The panels weight is not considered and shall be included in the total load calculation.
- Maximum deflection = L/240 under specified total load or L/360 under specified live load. Other deflection limits may apply. A 50% and 25% reductions in shear stiffness have been used when checking the permanent deformation and the elastic deflection, respectively, in order to account for the deformations caused by rolling shear.
- See Nordic technical notes for panel design properties and technical data.