



Limiting Heights for NITROSTUD 21 MIL (0.0210 in.), $F_y = 50$ ksi, Studs with 5/8" Type X Gypsum Board

Member Size	Spacing (in.)	5 (psf)						7.5 (psf)						10 (psf)					
		L/120		L/240		L/360		L/120		L/240		L/360		L/120		L/240		L/360	
		ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in	ft	in
1-5/8"	12	14	- 3	11	- 8	10	- 4	12	- 5	10	- 3	9	- 0	11	- 4	9	- 3	8	- 2
	16	12	- 11	10	- 8	9	- 5	11	- 4	9	- 3	8	- 2	10	- 3	8	- 4		
	24	11	- 4	9	- 3	8	- 2	9	- 11	7	- 11			8	- 8				
2-1/2"	12	17	- 8	15	- 2	13	- 8	15	- 5	13	- 3	11	- 11	14	- 0	12	- 1	10	- 10
	16	16	- 1	13	- 10	12	- 5	14	- 0	12	- 1	10	- 10	12	- 7f	11	- 0	9	- 10
	24	14	- 0	12	- 1	10	- 10	11	- 11f	10	- 6	9	- 4	10	- 3f	9	- 6	8	- 2
3-5/8"	12	22	- 6	17	- 10	15	- 7	19	- 8	15	- 7	13	- 8	17	- 1f	14	- 2	12	- 5
	16	20	- 5	16	- 3	14	- 2	17	- 1f	14	- 2	12	- 5	14	- 10f	12	- 11	11	- 2
	24	17	- 1f	14	- 2	12	- 5	14	- 0f	12	- 5	10	- 9	12	- 1f	11	- 2	9	- 8
4"	12	24	- 1	19	- 2	16	- 9	20	- 9f	16	- 9	14	- 7	18	- 0f	15	- 2	13	- 3
	16	21	- 11	17	- 5	15	- 2	18	- 0f	15	- 2	13	- 3	15	- 7f	13	- 10	12	- 1
	24	18	- 0f	15	- 2	13	- 3	14	- 8f	13	- 3	11	- 7	12	- 9f	12	- 1	10	- 5
6"	12	29	- 11f	25	- 1	21	- 11	24	- 5f	21	- 11	19	- 2	21	- 2f	19	- 11	17	- 5
	16	25	- 11f	22	- 10	19	- 11	21	- 2f	19	- 11	17	- 5	18	- 4f	18	- 1	15	- 10
	24	21	- 2f	19	- 11	17	- 5	17	- 3f	17	- 3f	15	- 2	14	- 11f	14	- 11f	13	- 8

NOTES:

- Allowable composite limiting heights are calculated using ICC-ES AC86-2010.
- Minimum safety factor for strength = 1.508 for 5 to 10 psf.
- The gypsum board must be applied full height to each stud flange and installed using minimum No. 6 Type S Drywall screws spaced a maximum of 12 in. on-center for studs at 24-in spacing, and 16 in. on-center for studs at 16 and 12 in. spacing.
- No fasteners are required for attaching the stud to the track.
- Stud end bearing must be a minimum of 1 inch.
- Minimum material yield strength equals 50 ksi.
- 'f' adjacent to the height value indicates that flexural stress controls the allowable wall height.
- 's' adjacent to the height value indicates that shear/end reaction controls the allowable wall height.