

ASTM C754 – 18 30 MIL COMPOSITE 5/8" BOARD

Depth	Member Designation	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"	162S125-30	12	14-11	11-10	10-4	13-1	10-4	8-11	11-10	9-4	7-11
		16	13-7	10-9	9-4	11-10	9-4	7-11	10-9	8-3	n/a
		24	11-10	9-4	7-11	10-4	7-11	n/a	9-4	n/a	n/a
2-1/2"	250S125-30	12	18-5	15-10	14-1	16-1	13-10	12-4	14-7	12-7	11-2
		16	16-9	14-5	12-10	14-7	12-7	11-2	13-3	11-5	10-2
		24	14-7	12-7	11-2	12-9	11-0	9-9	11-7	10-0	8-8
3-1/2"	350S125-30	12	22-6	17-11	15-8	19-8	15-8	13-8	17-11	14-2	12-4
		16	20-6	16-3	14-2	17-11	14-2	12-4	16-3	12-11	11-1
		24	17-11	14-2	12-4	15-8	12-4	10-7	13-9f	11-1	n/a
3-5/8"	362S125-30	12	22-10	18-3	16-4	19-11	16-0	14-3	18-1	14-6	12-11
		16	20-8	16-7	14-10	18-1	14-6	12-11	16-5	13-2	11-6
		24	18-1	14-6	12-11	15-9f	12-8	10-11	13-8f	11-4	n/a
4"	400S125-30	12	24-6	19-5	17-0	21-5	17-0	14-10	19-5	15-5	13-6
		16	22-3	17-8	15-5	19-5	15-5	13-6	17-5f	14-0	12-2
		24	19-5	15-5	13-6	16-5f	13-6	11-7	14-2f	12-2	10-4
5-1/2"	550S125-30	12	30-5	24-10	22-0	27-0	22-0	19-5	24-10	20-2	17-10
		16	28-0	22-9	20-2	24-10f	20-2	17-10	21-7f	18-6	16-2
		24	24-10	20-2	17-10	20-4f	17-10	15-7	17-7f	16-2	n/a
6"	600S125-30	12	34-2	27-1	23-8	28-11f	23-8	20-8	25-0f	21-6	18-9
		16	30-8f	24-7	21-6	25-0f	21-6	18-9	21-8f	19-6	17-1
		24	25-0f	21-6	18-9	20-5f	18-9	16-5	17-8f	17-1	n/a

Notes to Table:

- Allowable composite heights are derived from tests conducted in accordance with ICC-ES AC86-2012.
- Table heights also applicable for two layers of gypsum board.
- The gypsum board (one or two layers) must be installed vertically full height to each stud flange 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 in. and 12 in. spacing. Gypsum board (one or two layers) must be attached to each top and bottom track flange using minimum No. 6 drywall screws at maximum 16 in. on-center.
- Application of gypsum board as required in accordance with Specification C840.
- No fasteners are required for attaching the stud to the track except as required by subsection 5.3.2.1.
- Stud end bearing must be a minimum of 1 in.
- Minimum material yield strength equals 33 ksi (230 MPa).
- 'f' adjacent to the height value indicates that flexural stress controls the allowable wall height.

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