



SHEETROCK NAILING PATTERNS

TABLE R702.3.5 MINIMUM THICKNESS AND APPLICATION OF GYPSUM BOARD

Thickness of gypsum wallboard (inches)	Application	Orientation of Gypsum Board to Framing	Maximum spacing of framing members (inches o.c.)	Maximum spacing of fasteners (Inches)		Size of nails for application to wood framing ^c
				Nails _a	Screws _b	
1/2	Ceiling	Either direction	16	7	12	13 gage, 1 3/8" long, 19/64" head: 0.098 diameter, 1 1/4" long, annular-ringed: 5d cooler nail, 0.086 diameter, 1 5/8" long 15/64" head; or gypsum board nail, 0.086 diameter, 1 5/8" long, 9/32" head.
	Ceiling ^d	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	
5/8	Ceiling	Either direction	16	7	12	13 gage, 1 5/8" long, 19/64" head; 0.098 diameter, 1 3/8" long, annular-ringed; 6d cooler nail, 0.092 diameter, 1 7/8" long, 1/4" head; or gypsum board nail, 0.0915 diameter, 1 7/8" long, 19/64" head.
	Ceiling ^e	Perpendicular	24	7	12	
	Wall	Either direction	24	8	12	
	Wall	Either direction	16	8	16	
	Type X at garage ceiling beneath habitable rooms	Perpendicular	24	6	6	1 7/8' long 6d coated nails or equivalent drywall screws. Screws shall comply with section R702.3.5.1

- For application without adhesive, a pair of nails spaced not less than 2 inches apart or more than 2 1/2 inches apart may be used with the pair of nails spaced 12 inches on center.
- Screws shall be in accordance with Section R702.3.6. Screws for attaching gypsum board to structural insulated panels shall penetrate the wood structural panel facing not less than 7/16 inch.
- Where cold-formed steel framing is used with a clinching design to receive nails by two edges of metal, the nails shall be not less than 5/8 inch longer than the gypsum board thickness and shall have ringed shanks. Where the cold-formed steel framing has a nailing groove formed to receive the nails, the nails shall have barbed shanks or be 5d, 13 1/2 gage, 1 5/8 inches long, 15/64-inch head for 1/2 -inch gypsum board; and 6d, 13 gage, 1 7/8 inches long, 15/64-inch head for 5/8-inch gypsum board.
- Three-eighths-inch-thick single-ply gypsum board or gypsum panel product shall not be used on a ceiling where a water-based textured finish is to be applied, or where it will be required to support insulation above a ceiling. On ceiling applications to receive a water based texture material, either hand or spray applied, the gypsum board or gypsum panel product shall be applied perpendicular to framing. Where applying a water based texture material, the minimum gypsum board thickness shall be increased from 3/8 inch to 1/2 inch for 16-inch on center framing, and from 1/2 inch to 5/8 inch for 24-inch on center framing or 1/2-inch sag-resistant gypsum ceiling board shall be used.