



DSA Structural Amendments under review are highlighted in Marginal Markings

Template 23-13

2001 CBC - Chapter 23A WOOD

Section - TABLES

Subsection(s) - TABLE 23A-II-I-1

TABLE 23A-II-I-1—ALLOWABLE SHEAR FOR WIND OR SEISMIC FORCES IN POUNDS PER FOOT FOR PLYWOOD SHEAR WALLS WITH FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE^{1,2,3,4,7}

PANEL GRADE	MINIMUM NOMINAL PANEL THICKNESS (inches) × 25.4 for mm	MINIMUM NAIL PENETRATION IN FRAMING (inches)	Nail Size (Common or Galvanized Box) ⁵	PANELS APPLIED DIRECTLY TO FRAMING			
				Nail Spacing at Panel Edges (in.)			
				× 25.4 for mm			
				6	4	3	2
Structural I	⁵ / ₁₆	1 ¹ / ₄	6d	200	300	390	510
	³ / ₈	1 ¹ / ₂	8d	230	360	460	610
	⁷ / ₁₆			255	395	505	670
	¹⁵ / ₃₂			280	430	550	730
	¹⁵ / ₃₂	1 ⁵ / ₈	10d	340	510	665	870
C-D, C-C Sheathing, plywood panel ⁶ siding and other grades covered in UBC Standard 23-2 or 23-3	⁵ / ₁₆	1 ¹ / ₄	6d	180	270	350	450
	³ / ₈	1 ¹ / ₂	8d	200	300	390	510
	⁷ / ₁₆			220	320	410	530
	¹⁵ / ₃₂			240	350	450	585
	¹⁵ / ₃₂	1 ⁵ / ₈	10d	260	380	490	640
	¹⁹ / ₃₂			310	460	600	770
	Plywood panel siding ⁶ in grades covered in UBC Standard 23-2	⁵ / ₁₆	1 ¹ / ₄	6d	140	210	275
³ / ₈		1 ¹ / ₂	8d	160	240	310	410

¹ All plywood panel edges shall be backed with 2-inch (51 mm) nominal or thicker framing. Plywood may be installed either horizontally or vertically. Space nails at 6 inches (152 mm) on center along intermediate framing members for 3/8-inch (9.5 mm) and 7/16-inch (11 mm) plywood panels installed on studs spaced 24 inches (610 mm) on center and 12 inches (305 mm) on center for other conditions and panel thicknesses. These values are for short-time loads due to wind or earthquake and must be reduced 25 percent for normal loading.

Allowable shear values for nails in framing members of other species set forth in Division III, Part III, shall be calculated for all other grades by multiplying the tabulated shear capacities for common nails * * * by the following factors: 0.82 for species with specific gravity greater than or equal to 0.42 but less than 0.49, and 0.65 for species with a specific gravity less than 0.42.

² Where plywood panels are applied on both faces of a wall, * * * plywood panel joints shall occur at * * * 3-inch (76 mm) nominal or thicker framing members, including blocking, and nails on each side shall be staggered.

³ In Seismic Zones 3 and 4, where allowable shear values exceed 350 pounds per foot (5.11 N/mm), foundation sill plates and all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch (76 mm) nominal member and foundation sill plates shall not be less than a single 3-inch (76 mm) nominal member. In shear walls where total wall design shear does not exceed 600 pounds per foot (8.76 N/mm), a single 2-inch (51 mm) nominal sill plate may be used, provided anchor bolts are designed for a load capacity of 50 percent or less of the allowable capacity. Plywood joint and sill plate nailing shall be staggered in all cases.

⁴ Shear walls more than one vertical panel in height shall have either vertical or horizontal staggered spliced joints. At continuous horizontal joints the blocking shall be 3-inch (76 mm) nominal or thicker.

⁵ Allowable values for galvanized box nails shall be reduced proportionately using the values set forth in Tables 23A-III-C-1 and 23A-III-C-2.

⁶ Allowable value shall be based on the net thickness of the grooved siding.

⁷ The minimum edge distance for nails in the receiving members and the plywood shall be 3/8-inch (9.5 mm) for 2-inch (51 mm) nominal receiving members and 1/2-inch (13 mm) for 3-inch (76 mm) nominal receiving members. Flat blocking receiving 10d nails shall be 3-inch by 4-inch nominal (76 mm by 102 mm) or larger.