

TABLE B-1

**ALLOWABLE SHEAR IN POUNDS PER FOOT FOR HIGH-LOAD HORIZONTAL BLOCKED DIAPHRAGMS WITH FRAMING OF DOUGLAS-FIR, LARCH OR SOUTHERN PINE<sup>(a)</sup> FOR WIND OR SEISMIC LOADING<sup>(b,g)</sup> (See also IBC Table 2306.3.2)**

Panel Grade <sup>(c)</sup>	Fastener		Minimum Nominal Thickness (inch)	Minimum Nominal Width of Framing Member <sup>(f)</sup> (inches)	Lines of Fasteners	Cases 1 and 2 <sup>(d)</sup>					
	Type	Minimum Penetration in Framing (inches)				Fastener spacing per line at boundaries					
						4 inches		2-1/2 inches		2 inches	
						Fastener spacing per line at other panel edges (inches)					
					6	4	4	3	3	2	
Structural I	10d Common Nails	1-5/8	15/32	3	2	605	815	875	1,150	–	–
				4	2	700	915	1,005	1,290	–	–
				4	3	875	1,220	1,285	1,395	–	–
			23/32	3	2	670	880	965	1,255	–	–
				4	2	780	990	1,110	1,440	–	–
				4	3	965	1,320	1,405	1,790	–	–
	14 Gage Staples	2	15/32	3	2	600	600	860	960	1,060	1,200
				4	3	860	900	1,160	1,295	1,295	1,400
				3	2	600	600	875	960	1,075	1,200
			19/32	4	3	875	900	1,175	1,440	1,475	1,795
				3	2	525	725	765	1,010	–	–
				4	2	605	815	875	1,105	–	–
Other APA Grades	10d Common Nails	1-5/8	15/32	4	3	765	1,085	1,130	1,195	–	–
				3	2	650	860	935	1,225	–	–
				4	2	755	965	1,080	1,370	–	–
			23/32	4	3	935	1,290	1,365	1,485	–	–
				3	2	710	955	1,020	1,335	–	–
				4	2	825	1,030	1,175	1,445	–	–
	14 Gage Staples	2	15/32	4	3	1,020	1,400	1,480	1,565	–	–
				3	2	540	540	735	865	915	1,080
				4	3	735	810	1,005	1,105	1,105	1,195
			19/32	3	2	600	600	865	960	1,060	1,200
				4	3	865	900	1,130	1,430 <sup>(e)</sup>	1,370 <sup>(e)</sup>	1,485 <sup>(e)</sup>

For **SI**: 1 inch = 25.4 mm, 1 plf = 14.6 N/m.

(a) For framing of the other species: (1) Find specific gravity for species of framing lumber in AF&PA National Design Specification, (2) Find shear value from table above for nail size of actual grade, and (3) Multiply value by the following adjustment factor =  $[1 - 0.5 - SG]$ , where SG = specific gravity of the framing lumber. This adjustment factor shall not be greater than 1.

(b) Fastening along intermediate framing members: Nails must be spaced 12 inches on center, except spacing must be 6 inches on center for spans greater than 32 inches.

(c) Panels must conform to PS 1-95 or PS 2-92.

(d) This table gives shear values for Cases 1 and 2, defined in Table 2306.3.1 of the 2003 IBC. The values shown are applicable to Cases 3, 4, 5 and 6 as shown in Table 2306.3.1. of the 2003 IBC, provided fasteners at all continuous panel edges are spaced in accordance with the boundary fastener spacing.

(e) Allowable shear value may be increased 60 pounds per foot when 23/32-inch wood structural panels are used.

(f) At adjoining panel edges and diaphragm boundaries. Minimum depth at adjoining panel edges and diaphragm boundaries shall be 3 inches.

(g) Special inspection per IBC Section 1704.6.1.