

**ALLOWABLE WIND PRESSURE (PSF) FOR EXTERIOR COVERINGS AND BACKING MATERIALS**

Type of Supporting Material		Wood Structural Panel Sheathing <sup>1</sup> (OSB, plywood)		Fiberboard Sheathing <sup>1</sup>		Gypsum Exterior Sheathing <sup>2</sup>		Foam Plastic Sheathing <sup>3</sup>		Direct to Studs	
		Parallel	1/2"	16"	31	Parallel	Perp.	Parallel	Ins. Bd.		
Panel Orientation		3/8"		1/2"		1/2"		1/2"		-	
Min. Thickness (inches)		16"		16"		16"		16"		16"	
Max. Stud Spacing (inches)		31		56		13		36		0	
Allowable Wind Pressure (psf) - Backing		Allowable Wind Pressure (psf) - Siding		Allowable Wind Pressure (psf) - Siding + Backing							
Siding Material	Min. Thickness	Max. Stud Spacing	0	31	56	31	13	13	36	0	0
Aluminum Siding <sup>4</sup>	0.019"	16"	0	31	56	31	13	13	36	0	0
Brick, Stone or Masonry Veneer <sup>5</sup>	2"	16"	-	-	-	-	-	-	-	-	-
Hardboard Panel or Lap Siding <sup>1</sup>	7/16"	16"	163	194	219	194	176	199	163	163	163
Steel Siding <sup>4</sup>	29 ga.	16"	0	31	56	31	13	13	36	0	0
Plywood Panels <sup>1</sup>	3/8"	16"	31	62	87	62	44	67	31	31	31
	1/2"	16"	56	87	112	87	69	92	56	56	56
Vinyl Siding <sup>4</sup>	0.035"	16"	0	31	56	31	13	13	36	0	0
Wood Siding <sup>1</sup>	3/8"	16"	31	62	87	62	44	67	31	31	31
Fiber Cement Panel or Lap Siding <sup>6</sup>	5/16"	16"	21	52	77	52	34	57	21	21	21

Required Wind Pressure (psf) from IRC Table R301.2(2)	90 mph	16 psf
	100 mph	20 psf
	110 mph	24 psf

Allowable wind pressure capacity (psf) derived from:

- <sup>1</sup> AF&PA Special Design Provisions for Wind & Seismic (SDPWS-05)
- <sup>2</sup> ASTM Standard Specification for Treated Core and Nontreated Core Gypsum Sheathing Board (ASTM C 79-01)
- <sup>3</sup> No stated design capacity found. Out-of-plane bending capacity assumed to be 0 psf.
- <sup>4</sup> Aluminum, steel and vinyl siding are not permitted to be unbacked and attached directly to studs. Out-of-plane bending capacity assumed to be 0 psf.
- <sup>5</sup> Brick, stone and masonry veneer are rigid finish materials that are connected to the backing material or studs using masonry clips rated for the wind pressures.
- <sup>6</sup> ASTM Standard Specification for Flat Non-Asbestos Fiber-Cement Sheets (ASTM C 1186-96a)