

WindSpeed

PRESSURE	LOAD	WIND SPEED		HURRICANE		TORNADO
		USSS	Smeaton	Beaufort Scale	Saffir-Simpson	Fujita
inches of H ₂ O	psf	mph	mph	number	category	scale
0.25	1.3	18.03	16.12	5		brisk gale
0.50	2.6	25.50	22.80	6		
0.75	3.9	31.22	27.93	7		high wind
1.00	5.2	36.06	32.25	7		
1.25	6.5	40.31	36.06	8		very high wind
1.50	7.8	44.16	39.50	8		F0
1.75	9.1	47.70	42.66	9		F0
2.00	10.4	50.99	45.61	9		F0 storm
2.25	11.7	54.08	48.37	9		F0
2.50	13.0	57.01	50.99	10		F0
2.75	14.3	59.79	53.48	10		F0 great storm
3.00	15.6	62.45	55.86	10		F0
3.25	16.9	65.00	58.14	11		F0
3.50	18.2	67.45	60.33	11		F0
3.75	19.5	69.82	62.45	11		F0
4.00	20.8	72.11	64.50	11		F0
4.25	22.1	74.33	66.48	12	1	F1 hurricane
4.50	23.4	76.49	68.41		1	F1
4.75	24.7	78.58	70.29		1	F1
5.00	26.0	80.62	72.11		1	F1
5.25	27.3	82.61	73.89		1	F1
5.50	28.6	84.56	75.63		1	F1
5.75	29.9	86.46	77.33		1	F1
6.00	31.2	88.32	78.99		1	F1
6.25	32.5	90.14	80.62		1	F1
6.50	33.8	91.92	82.22		1	F1
6.75	35.1	93.67	83.79		1	F1
7.00	36.4	95.39	85.32		1	F1
7.25	37.7	97.08	86.83		2	F1
7.50	39.0	98.74	88.32		2	F1
7.75	40.3	100.37	89.78		2	F1
8.00	41.6	101.98	91.21		2	F1
8.25	42.9	103.56	92.63		2	F1
8.50	44.2	105.12	94.02		2	F1
8.75	45.5	106.65	95.39		2	F1
9.00	46.8	108.17	96.75		2	F1
9.25	48.1	109.66	98.08		2	F1
9.50	49.4	111.13	99.40		3	F1
9.75	50.7	112.58	100.70		3	F1
10.00	52.0	114.02	101.98		3	F2
10.25	53.3	115.43	103.25		3	F2
10.50	54.6	116.83	104.50		3	F2
10.75	55.9	118.22	105.74		3	F2
11.00	57.2	119.58	106.96		3	F2
11.25	58.5	120.93	108.17		3	F2
11.50	59.8	122.27	109.36		3	F2
11.75	61.1	123.59	110.54		3	F2
12.00	62.4	124.90	111.71		3	F2
12.25	63.7	126.19	112.87		3	F2
12.50	65.0	127.48	114.02		3	F2
12.75	66.3	128.74	115.15		3	F2
13.00	67.6	130.00	116.28		3	F2
13.25	68.9	131.24	117.39		4	F2
13.50	70.2	132.48	118.49		4	F2
13.75	71.5	133.70	119.58		4	F2
14.00	72.8	134.91	120.66		4	F2
14.25	74.1	136.11	121.74		4	F2
14.50	75.4	137.30	122.80		4	F2
14.75	76.7	138.47	123.85		4	F2
15.00	78.0	139.64	124.90		4	F2
15.25	79.3	140.80	125.94		4	F2
15.50	80.6	141.95	126.96		4	F2
15.75	81.9	143.09	127.98		4	F2
16.00	83.2	144.22	129.00		4	F2
16.25	84.5	145.34	130.00		4	F2
16.50	85.8	146.46	131.00		4	F2
16.75	87.1	147.56	131.98		4	F2
17.00	88.4	148.66	132.97		4	F2
17.25	89.7	149.75	133.94		4	F2
17.50	91.0	150.83	134.91		4	F2
17.75	92.3	151.90	135.87		4	F2
18.00	93.6	152.97	136.82		4	F2
18.25	94.9	154.03	137.77		4	F2
18.50	96.2	155.08	138.71		5	F2
18.75	97.5	156.12	139.64		5	F2
19.00	98.8	157.16	140.57		5	F2
19.25	100.1	158.19	141.49		5	F3
19.50	101.4	159.22	142.41		5	F3
19.75	102.7	160.23	143.32		5	F3
20.00	104.0	161.25	144.22		5	F3
20.25	105.3	162.25	145.12		5	F3
20.50	106.6	163.25	146.01		5	F3
20.75	107.9	164.24	146.90		5	F3
21.00	109.2	165.23	147.78		5	F3
21.25	110.5	166.21	148.66		5	F3
21.50	111.8	167.18	149.53		5	F3
21.75	113.1	168.15	150.40		5	F3
22.00	114.4	169.12	151.26		5	F3
22.25	115.7	170.07	152.12		5	F3
22.50	117.0	171.03	152.97		5	F3
22.75	118.3	171.97	153.82		5	F3
23.00	119.6	172.92	154.66		5	F3
23.25	120.9	173.85	155.50		5	F3
23.50	122.2	174.79	156.33		5	F3
23.75	123.5	175.71	157.16		5	F3
24.00	124.8	176.64	157.99		5	F3
24.25	126.1	177.55	158.81		5	F3
24.50	127.4	178.47	159.62		5	F3
24.75	128.7	179.37	160.44		5	F3
25.00	130.0	180.28	161.25		5	F3

REF. - Kidder-Parker Architects' and Builders' Handbook - 18th Ed.

U.S.S.S. formula: $p = .004v^2$

(U.S. Signal Service formula used for table)

p = pressure in psf

v = velocity in mph

Smeaton formula: $p = .005v^2$

True values are probably between the two formulas, closer to the former at high velocities and closer to the latter for low velocities.