

Monarflex Wind Chart Estimates - Safety Factor 2 (Using a Modified Bernoulli Equation)

mph	lbs/sq ft	PSI	Safety factor	Design PSI	Anchor & Strap 165lb / 75kg		Flexitie 99lb / 45kg		Mono Stud, Polytoggle 77lb / 35kg		Wedge 44lb / 20kg	
					Max sq ft	Max distance (in)	Max sq ft	Max distance (in)	Max sq ft	Max distance (in)	Max sq ft	Max distance (in)
					per unit	between units	per unit	between units	per unit	between units	per unit	between units
0	0.00	0.000	2	0.000								
2	0.01	0.000	2	0.000	8063.55	1077.57	4838.13	834.68	3762.99	736.12	2150.28	556.45
4	0.04	0.000	2	0.001	2015.89	538.78	1209.53	417.34	940.75	368.06	537.57	278.23
6	0.09	0.001	2	0.001	895.95	359.19	537.57	278.23	418.11	245.37	238.92	185.48
8	0.16	0.001	2	0.002	503.97	269.39	302.38	208.67	235.19	184.03	134.39	139.11
10	0.26	0.002	2	0.004	322.54	215.51	193.53	166.94	150.52	147.22	86.01	111.29
12	0.37	0.003	2	0.005	223.99	179.59	134.39	139.11	104.53	122.69	59.73	92.74
14	0.50	0.003	2	0.007	164.56	153.94	98.74	119.24	76.80	105.16	43.88	79.49
16	0.65	0.005	2	0.009	125.99	134.70	75.60	104.33	58.80	92.01	33.60	69.56
18	0.83	0.006	2	0.012	99.55	119.73	59.73	92.74	46.46	81.79	26.55	61.83
20	1.02	0.007	2	0.014	80.64	107.76	48.38	83.47	37.63	73.61	21.50	55.65
22	1.24	0.009	2	0.017	66.64	97.96	39.98	75.88	31.10	66.92	17.77	50.59
24	1.47	0.010	2	0.020	56.00	89.80	33.60	69.56	26.13	61.34	14.93	46.37
26	1.73	0.012	2	0.024	47.71	82.89	28.63	64.21	22.27	56.62	12.72	42.80
28	2.01	0.014	2	0.028	41.14	76.97	24.68	59.62	19.20	52.58	10.97	39.75
30	2.30	0.016	2	0.032	35.84	71.84	21.50	55.65	16.72	49.07	9.56	37.10
32	2.62	0.018	2	0.036	31.50	67.35	18.90	52.17	14.70	46.01	8.40	34.78
34	2.96	0.021	2	0.041	27.90	63.39	16.74	49.10	13.02	43.30	7.44	32.73
36	3.31	0.023	2	0.046	24.89	59.86	14.93	46.37	11.61	40.90	6.64	30.91
38	3.69	0.026	2	0.051	22.34	56.71	13.40	43.93	10.42	38.74	5.96	29.29
40	4.09	0.028	2	0.057	20.16	53.88	12.10	41.73	9.41	36.81	5.38	27.82
42	4.51	0.031	2	0.063	18.28	51.31	10.97	39.75	8.53	35.05	4.88	26.50
44	4.95	0.034	2	0.069	16.66	48.98	10.00	37.94	7.77	33.46	4.44	25.29
46	5.41	0.038	2	0.075	15.24	46.85	9.15	36.29	7.11	32.01	4.06	24.19
48	5.89	0.041	2	0.082	14.00	44.90	8.40	34.78	6.53	30.67	3.73	23.19
50	6.39	0.044	2	0.089	12.90	43.10	7.74	33.39	6.02	29.44	3.44	22.26
52	6.92	0.048	2	0.096	11.93	41.44	7.16	32.10	5.57	28.31	3.18	21.40
54	7.46	0.052	2	0.104	11.06	39.91	6.64	30.91	5.16	27.26	2.95	20.61
56	8.02	0.056	2	0.111	10.29	38.48	6.17	29.81	4.80	26.29	2.74	19.87
58	8.60	0.060	2	0.120	9.59	37.16	5.75	28.78	4.47	25.38	2.56	19.19
60	9.21	0.064	2	0.128	8.96	35.92	5.38	27.82	4.18	24.54	2.39	18.55
62	9.83	0.068	2	0.137	8.39	34.76	5.03	26.93	3.92	23.75	2.24	17.95
64	10.48	0.073	2	0.146	7.87	33.67	4.72	26.08	3.67	23.00	2.10	17.39
66	11.14	0.077	2	0.155	7.40	32.65	4.44	25.29	3.46	22.31	1.97	16.86
68	11.83	0.082	2	0.164	6.98	31.69	4.19	24.55	3.26	21.65	1.86	16.37
70	12.53	0.087	2	0.174	6.58	30.79	3.95	23.85	3.07	21.03	1.76	15.90
72	13.26	0.092	2	0.184	6.22	29.93	3.73	23.19	2.90	20.45	1.66	15.46
74	14.01	0.097	2	0.195	5.89	29.12	3.53	22.56	2.75	19.90	1.57	15.04
76	14.77	0.103	2	0.205	5.58	28.36	3.35	21.97	2.61	19.37	1.49	14.64
78	15.56	0.108	2	0.216	5.30	27.63	3.18	21.40	2.47	18.87	1.41	14.27
80	16.37	0.114	2	0.227	5.04	26.94	3.02	20.87	2.35	18.40	1.34	13.91
82	17.20	0.119	2	0.239	4.80	26.28	2.88	20.36	2.24	17.95	1.28	13.57
84	18.05	0.125	2	0.251	4.57	25.66	2.74	19.87	2.13	17.53	1.22	13.25
86	18.92	0.131	2	0.263	4.36	25.06	2.62	19.41	2.04	17.12	1.16	12.94
88	19.81	0.138	2	0.275	4.17	24.49	2.50	18.97	1.94	16.73	1.11	12.65
90	20.72	0.144	2	0.288	3.98	23.95	2.39	18.55	1.86	16.36	1.06	12.37
92	21.65	0.150	2	0.301	3.81	23.43	2.29	18.15	1.78	16.00	1.02	12.10
94	22.60	0.157	2	0.314	3.65	22.93	2.19	17.76	1.70	15.66	0.97	11.84
96	23.57	0.164	2	0.327	3.50	22.45	2.10	17.39	1.63	15.34	0.93	11.59
98	24.57	0.171	2	0.341	3.36	21.99	2.02	17.03	1.57	15.02	0.90	11.36
100	25.58	0.178	2	0.355	3.23	21.55	1.94	16.69	1.51	14.72	0.86	11.13

Hurricane wind speed
Not recommended for these wind exposures
Safety factor can not be obtained with this choice of fastener

The Monarflex Wind Chart is an estimation of the approximation of pressure differences between the two sides of the sheeting created by air movements, and is based on the Modified Bernoulli Equations as defined at <http://gdjinc.com/pdf/WTLessonPlans.pdf>. A safety factor of two has been included in the design pressure by multiplying the calculated pressure by two. It is recommended that the data be independently verified using actual project conditions.



Siplast 1000 E. Rochelle Blvd., Irving, TX 75062
 Tel 469 995 2200, Fax 469 995 2249
 In Canada: 201 Bewicke Avenue, Suite 210, North Vancouver, BC V7M 3M7
 Tel 604 929 7687, Fax 604 929 7683
 Toll Free in North America 1 800 922 8800 www.siplast.com