

Wind rating comparison of various fence post types for open fencing (e.g. chain link) - no ice loading

6' high - 1-3/4" x 9 ga chain link mesh - mph ratings for 8' / 10' post spacings - no gap at the bottom - Exposure B

Roughly equivalent wind area to an ornamental / wrought iron fence - 3/4" pickets on 3.75" spacing

For comparison only - not for design - no axial forces included in the values below which will reduce the speeds

Shorter fence height will increase these speeds - taller fence height will decrease these speeds

Mid rail braced, w/ or w/o top rail	2-3/8" O.D. Pipe	mph	1-1/2" Square	mph
Hat Channel	18 Ga, 40 ksi	117 / 104	16 Ga, 45 ksi	92 / 82
11 ga H4"	17 Ga, 40 ksi	126 / 112	14 Ga, 45 ksi	102 / 90
12 Ga H4-1/2"	16 Ga, 40 ksi	136 / 121	11 Ga, 45 ksi	122 / 109
11 ga H3-1/2"	15 wt, 50 ksi	164 / 146		
	20 wt, 50 ksi	182 / 162	2" Square	mph
Wood	30 wt, 50 ksi	198 / 176	16 Ga, 45 ksi	129 / 115
4 x 4 PT #2 Pine	Schd 40, 30 ksi	175 / 156	14 Ga, 45 ksi	143 / 127
4 x 6 PT #2 Pine	40 wt, 50 ksi	208 / 186	11 Ga, 45 ksi	175 / 156
6 x 6 PT #2 Pine	Schd 40, 50 ksi	226 / 201	1/4", 45 ksi	249 / 222
4 x 4 Red Cedar	Schd 80, 50 ksi	262 / 234		
4 x 6 Red Cedar			2-1/2" Square	mph
6 x 6 Red Cedar	2-7/8" O.D. Pipe	mph	16 Ga, 45 ksi	161 / 144
	20 wt, 50 ksi	239 / 213	14 Ga, 45 ksi	183 / 164
1-5/8" O.D. Pipe	30 wt, 50 ksi	257 / 230	12 Ga, 45 ksi	213 / 190
18 Ga, 40 ksi	Schd 40, 30 ksi	243 / 217	11 Ga, 45 ksi	229 / 204
17 Ga, 40 ksi	40 wt, 50 ksi	281 / 251	1/4", 45 ksi	325 / 290
16 Ga, 40 ksi	Schd 40, 50 ksi	313 / 280		
15 wt, 50 ksi	Schd 80, 50 ksi	357 / 319	3" Square	mph
20 wt, 50 ksi			14 Ga, 45 ksi	219 / 193
30 wt, 50 ksi	3-1/2" O.D. Pipe	mph	12 Ga, 45 ksi	261 / 233
Schd 40, 30 ksi	Schd 40, 30 ksi	308 / 275	11 Ga, 45 ksi	282 / 252
40 wt, 50 ksi	40 wt, 50 ksi	348 / 311	1/4", 45 ksi	402 / 359
Schd 40, 50 ksi	Schd 40, 50 ksi	398 / 356		
Schd 80, 50 ksi	Schd 80, 50 ksi	458 / 410	4" Square	mph
			13 Ga, 45 ksi	327 / 292
1-7/8" O.D. Pipe	4" O.D. Pipe	mph	11 Ga, 45 ksi	384 / 344
18 Ga, 40 ksi	30 wt, 50 ksi	378 / 338	1/4", 45 ksi	553 / 495
17 Ga, 40 ksi	Schd 40, 30 ksi	362 / 324		
16 Ga, 40 ksi	40 wt, 50 ksi	401 / 359		
15 wt, 50 ksi	Schd 40, 50 ksi	468 / 418		
20 wt, 50 ksi	Schd 80, 50 ksi	543 / 485		
30 wt, 50 ksi				
Schd 40, 30 ksi				
40 wt, 50 ksi				
Schd 40, 50 ksi				
Schd 80, 50 ksi				

" * " = post fails at minimum wind load for 1-3/4" x 9 ga chain link wind area - more open meshes would pass

Wind speeds per IBC 2018 / ASCE 7-16, Risk Category 1, $K_{zt} = 1.0$, $Z_e = 0$