

Table 4
Constructions, Breaking Loads, and Weight Requirements for Zinc-Coated
Steel Wire Strand
 (See Clause 4.2.1.)

Designated strand size, in	Nominal strand diameter, in	Nominal wire diameter, in*	Nominal metallic cross-sectional area of the strand, in ²	Number of wires	Minimum breaking load, lb †				Approximate weight, lb/1000 ft
					Grade 110	Grade 160	Grade 180	Grade 220	
1 3/16	0.195	0.065	0.023	7	2 400	3 500	4 000	4 800	79
2 1/4	0.249	0.083	0.038	7	3 900	5 700	6 400	7 900	129
3 9/32	0.285	0.095	0.050	7	5 200	7 500	8 500	10 300	169
4 5/16	0.327	0.109	0.065	7	6 800	9 900	11 100	13 600	223
5 3/8	0.360	0.120	0.079	7	8 200	12 000	13 500	16 500	270
6 7/16	0.432	0.144	0.114	7	11 900	17 300	19 500	23 800	389
7 1/2	0.495	0.165	0.150	7	15 600	22 700	25 500	31 200	511
9 1/16	0.564	0.188	0.194	7	20 300	29 500	33 200	40 600	664
9 7/16	0.569	0.113/.117	0.191	19	18 900	27 500	30 900	37 800	657
5 7/8	0.621	0.207	0.235	7	24 600	35 800	40 200	49 200	813
5 7/8	0.634	0.125/.134	0.235	19	23 000	33 600	37 700	46 100	806
11 1/16	0.688	0.136/.144	0.278	19	27 500	40 000	45 000	55 000	954
3 1/4	0.762	0.150/.162	0.339	19	33 500	48 700	54 800	67 000	1 163
13 1/16	0.815	0.161/.171	0.389	19	38 700	56 000	63 100	77 100	1 338
7 7/8	0.894	0.177/.186	0.470	19	46 200	67 300	75 700	92 500	1 613
15 1/16	0.940	0.186/.196	0.519	19	51 400	74 700	84 100	102 800	1 784
1	1.008	0.200/.208	0.60	19	59 100	85 900	96 700	118 100	2 057
1-1/8	1.125	Dependent upon design	0.76	More than 19 wires	—	—	—	156 000	2 660
1-1/4	1.250		0.94		—	—	—	192 000	3 280
1-3/8	1.375		1.13		—	—	—	232 000	3 970
1-1/2	1.500		1.35		—	—	—	276 000	4 730
1-5/8	1.625		1.59		—	—	—	324 000	5 550
1-3/4	1.750		1.84		—	—	—	376 000	6 430
1-7/8	1.875		2.11		—	—	—	432 000	7 390
2	2.000		2.40		—	—	—	490 000	8 400

*In the construction of 19-wire strands, the smaller nominal wire size applies to the 6- and 12-wire layers and the larger nominal wire size applies to the centre wire.

†The minimum strand breaking load is calculated using the following formula:

$$\text{Minimum strand breaking load} = A \times T \times E$$

where

A = nominal metallic cross-sectional area of the strand in square inch

T = tensile grade of the wire in pounds per square inch

E = stranding efficiency factor

0.95 for strands containing 7 wires

0.90 for strands containing 19 or more wires