

# Alloy Comparisons

**30 AWG** Diameter (nom): 0.0100 in (0.254 mm)

Single End

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	15%	105.8	347.2	2.46	1.12
PERCON 24	Soft	8%	117.5	385.6	4.62	2.09
C18135	Soft	8%	124.5	408.4	4.62	2.09
PERCON 11	Hard	1%	117.5	385.6	6.16	2.79
PERCON 17	Hard	1%	132.2	433.8	7.31	3.32
C162	Hard	1%	132.2	433.8	7.70	3.49
CCS (40%)	Hard	1%	269.9	885.4	8.47	3.84
CCS (40%)	Soft	10%	269.9	885.4	3.46	1.57

**32 AWG** Diameter (nom): 0.0080 in (0.203 mm)

Single End

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	15%	166.2	545.2	1.57	0.712
PERCON 24	Soft	8%	184.6	605.6	2.94	1.33
C18135	Soft	8%	195.5	641.4	2.94	1.33
PERCON 11	Hard	1%	184.6	605.6	3.92	1.78
PERCON 17	Hard	1%	207.7	681.3	4.66	2.11
C162	Hard	1%	207.7	681.3	4.90	2.22
CCS (40%)	Hard	1%	423.8	1,390	5.39	2.45
CCS (40%)	Soft	10%	423.8	1,390	2.21	1.00

**26 AWG - 7/34** Diameter\* (nom): 0.0189 in (0.480 mm) • Lay length: 0.250 in (6.35 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	39.4	129.3	6.76	3.07
PERCON 24	Soft	8%	43.0	141.2	12.7	5.75
C18135	Soft	8%	45.8	150.3	12.7	5.75
PERCON 11	Hard	1%	43.3	142.0	16.9	7.67
PERCON 17	Hard	1%	48.7	159.7	20.1	9.10
C162	Hard	1%	48.7	159.7	21.1	9.58
CCS (40%)	Hard	1%	99.3	325.9	23.2	10.5
CCS (40%)	Soft	10%	99.3	325.9	9.50	4.31

**28 AWG - 7/36** Diameter\* (nom): 0.0144 in (0.366 mm) • Lay length: 0.200 in (5.08 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	63.0	206.7	4.22	1.91
PERCON 24	Soft	8%	68.8	225.7	8.2	3.71
C18135	Soft	8%	73.4	240.8	8.2	3.71
PERCON 11	Hard	1%	69.3	227.3	10.5	4.78
PERCON 17	Hard	1%	77.9	255.7	12.5	5.68
C162	Hard	1%	77.9	255.7	13.2	5.98
CCS (40%)	Hard	1%	159.0	521.6	14.5	6.58
CCS (40%)	Soft	10%	159.0	521.6	5.94	2.69

\* Nominal diameters listed are for comparison purposes only.

The information on these pages is for reference only. Data provided by Fisk Alloy Wire, Inc. Percon is a registered trademark of Fisk Alloy.



# Alloy Comparisons

**30 AWG - 7/38** Diameter\* (nom): 0.0114 in (0.290 mm) • Lay length: 0.200 in (5.08 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	99.0	324.8	2.67	1.21
PERCON 24	Soft	8%	108.0	354.3	5.2	2.36
C18135	Soft	8%	115.4	378.6	5.2	2.36
PERCON 11	Hard	1%	109.0	357.6	6.69	3.03
PERCON 17	Hard	1%	122.6	402.2	7.94	3.60
C162	Hard	1%	122.6	402.2	8.36	3.79
CCS (40%)	Hard	1%	250.1	820.5	9.19	4.17
CCS (40%)	Soft	10%	250.1	820.5	3.76	1.71

**32 AWG - 7/40** Diameter\* (nom): 0.00930 in (0.236 mm) • Lay length: 0.125 in (3.18 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	168	551.2	1.52	0.691
PERCON 24	Soft	8%	182.8	599.7	3.2	1.45
C18135	Soft	8%	195.7	642.1	3.2	1.45
PERCON 11	Hard	1%	184.8	606.3	3.96	1.79
PERCON 17	Hard	1%	207.9	682.1	4.70	2.13
C162	Hard	1%	207.9	682.1	4.95	2.24
CCS (40%)	Hard	1%	424.1	1391	5.44	2.47
CCS (40%)	Soft	10%	424.1	1391	2.23	1.01

**34 AWG - 7/42** Diameter\* (nom): 0.0075 in (0.191 mm) • Lay length: 0.100 in (2.54 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	262	859.6	1.01	0.459
PERCON 24	Soft	8%	284.7	934.0	1.90	0.862
C18135	Soft	8%	305.8	1003	1.90	0.862
PERCON 17	Hard	1%	324.8	1066	3.01	1.36
C162	Hard	1%	324.9	1066	3.16	1.44

**36 AWG - 7/44** Diameter\* (nom): 0.0060 in (0.152 mm) • Lay length: 0.100 in (2.54 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	420	1378	0.635	0.288
PERCON 24	Soft	8%	451.1	1480	1.19	0.540
C18135	Soft	8%	486.1	1595	1.19	0.540
PERCON 17	Hard	1%	516.5	1695	1.88	0.855
C162	Hard	1%	516.5	1695	1.98	0.900

**38 AWG - 7/46** Diameter\* (nom): 0.0047 in (0.119 mm) • Lay length: 0.0625 in (1.59 mm)

7 Strand Constr.

Alloy	Temper	Elongation (min)	Resistance (max)		Break (min)	
			Ω/mft	Ω/km	lb	kg
Copper	Soft	10%	696	2283	0.380	0.172
PERCON 24	Soft	8%	756.5	2482	0.712	0.322
C18135	Soft	8%	815.1	2674	0.712	0.322
PERCON 17	Hard	1%	857.1	2812	1.13	0.512
C162	Hard	1%	857.1	2812	1.19	0.538

\* Nominal diameters listed are for comparison purposes only.