

# Aerospace Conductors



## Percon® 17

PERCON® 17 has been developed to replace cadmium copper C162, specifically soft temper cadmium copper. This alloy is also available in hard temper.

PERCON® 17 is suitable for use in aerospace wire and cable meeting European requirements such as EN2083, prEN4434 and ISO2635.

PERCON® 17 has excellent resistance to corrosive environments. It exhibits the nobility inherent to all high copper alloys.

PERCON® 17 does not contain any environmentally hazardous materials such as cadmium.

PERCON® 17 is available bare or plated with silver, nickel or tin, in hard drawn and soft temper.

CONDUCTOR PROPERTIES		
	SOFT TEMPER	HARD DRAWN
Tensile	58,000 psi (400 MPa)	95,000 psi (655 MPa)
Elongation	6%	1%
Electrical Conductivity	85% IACS	80% IACS
Electrical Resistivity	12.20 Ω-cmil/ft (2.028 μΩ-cm)	12.96 Ω-cmil/ft (2.155 μΩ-cm)
Melting Point	1986°F (1086°C)	1986°F (1086°C)
Density	0.319 lbs/in <sup>3</sup> (8.84 g/cm <sup>3</sup> )	0.319 lbs/in <sup>3</sup> (8.84 g/cm <sup>3</sup> )
Thermal Coefficient of Resistance	0.00322/°C	0.00322/°C

Reference Specifications: EN2083, prEN4434, ISO2635, ASTM B 465, ASTM B 888

## Silver Plated Percon® 17

### 19 - Strand Unilay Metric Constructions - Light Weight (Tight Tolerance) - Silver Plated PERCON® 17 Soft

Nom. cross-section mm <sup>2</sup>	Construction	Diameter				Resistance max		Weight min - max		Break Strength min	
		min mm	max mm	min inch	max inch	Ω/km	Ω/mft	kg/km	lb/mft	N	lb
0.12	19/0.09 (19/39)	0.43	0.44	0.0168	0.0175	164	50.0	1.13-1.19	0.758-0.801	51	11.5
0.15	19/0.10 (19/38)	0.45	0.46	0.0176	0.0183	149	45.4	1.23-1.29	0.826-0.870	55	12.4
0.25	19/0.12 (19/36)	0.55	0.56	0.0215	0.0222	103	31.3	1.77-1.85	1.19-1.25	81	18.3

### 7 and 19 - Strand Unilay AWG Constructions - Light Weight (Tight Tolerance) - Silver Plated PERCON® 17 Soft

AWG	Const.	Diameter				Resistance max		Weight max		Break Strength min	
		min inch	max inch	min mm	max mm	Ω/mft	Ω/km	lb/mft	kg/km	lb	N
30	7/38	0.0117	0.0120	0.30	0.31	114.1	374	0.342	0.509	4.85	22
28	7/36	0.0147	0.0150	0.37	0.38	72.7	238	0.535	0.796	7.65	34
26	19/38	0.0180	0.0187	0.46	0.47	43.8	144	0.902	1.34	13.1	58
24	19/36	0.0230	0.0236	0.58	0.60	27.6	90.7	1.44	2.14	20.8	92
22	19/34	0.0290	0.0296	0.74	0.75	17.4	57.1	2.25	3.35	33.3	148
20	19/32	0.0370	0.0376	0.94	0.95	10.7	35.1	3.61	5.37	54.0	240

**Custom constructions are available, please contact the sales department.**

PERCON® is a registered trademark of Fisk Alloy Wire, Inc.

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**19 - Strand Metric Constructions - General Purpose - Silver Plated PERCON® 17 Soft**

Nom. cross-section mm²	Construction (Unilay)	Diameter				Resistance max		Weight max		Break Strength min	
		mm		inch		Ω/km	Ω/mft	kg/km	lb/mft	N	lb
0.15	19/0.10 (19/38)	0.46	0.48	0.0180	0.0190	147	44.7	1.38	0.929	57	12.8
0.25	19/0.12 (19/36)	0.56	0.58	0.0218	0.0230	101	30.7	1.97	1.33	83	18.7
	(Concentric)										
0.15	19/0.10 (19/38)	0.49	0.51	0.0191	0.0202	143	43.5	1.43	0.962	57	12.8
0.25	19/0.12 (19/36)	0.59	0.62	0.0231	0.0245	97.9	29.8	2.04	1.37	83	18.7

**Nickel Plated Percon® 17**

**19 - Strand Unilay Metric Constructions - Light Weight (Tight Tolerance) - Nickel Plated PERCON® 17 Soft**

Nom. cross-section mm²	Construction	Diameter				Resistance max		Weight min - max		Break Strength min	
		mm		inch		Ω/km	Ω/mft	kg/km	lb/mft	N	lb
0.12	19/0.09 (19/39)	0.43	0.44	0.0168	0.0175	176	53.7	1.11-1.20	0.744-0.808	51	11.4
0.15	19/0.10 (19/38)	0.45	0.47	0.0176	0.0187	159	48.6	1.19-1.32	0.803-0.891	55	12.4
0.25	19/0.12 (19/36)	0.55	0.57	0.0215	0.0226	107	32.5	1.76-1.92	1.19-1.29	81	18.3

**7 and 19 - Strand Unilay AWG Constructions - Light Weight (Tight Tolerance) - Nickel Plated PERCON® 17 Soft**

AWG	Const.	Diameter				Resistance max		Weight max		Break Strength min	
		inch		mm		Ω/mft	Ω/km	lb/mft	kg/km	lb	N
30	7/38	0.0117	0.0122	0.30	0.31	121.4	398	0.348	0.518	4.85	22
28	7/36	0.0147	0.0151	0.37	0.38	75.4	248	0.543	0.808	7.65	34
26	19/38	0.0180	0.0187	0.46	0.48	46.6	153	0.918	1.37	13.1	58
24	19/36	0.0230	0.0237	0.58	0.60	28.8	94.5	1.43	2.12	20.7	92
22	19/34	0.0290	0.0299	0.74	0.76	18.1	59.4	2.27	3.38	33.2	148
20	19/32	0.0370	0.0377	0.94	0.96	11.2	36.7	3.60	5.36	53.3	237

**19 - Strand Unilay Metric Constructions – General Purpose – Nickel Plated PERCON 17 Soft**

Nom. cross-section mm²	Construction (Unilay)	Diameter				Resistance max		Weight max		Break Strength min	
		mm		inch		Ω/km	Ω/mft	kg/km	lb/mft	N	lb
0.15	19/0.10 (19/38)	0.46	0.51	0.0180	0.0202	156	47.6	1.51	1.02	57	12.8
0.25	19/0.12 (19/36)	0.56	0.60	0.0219	0.0238	107	32.5	2.13	1.43	83	18.7
	(Concentric)										
0.15	19/0.10 (19/38)	0.48	0.53	0.0188	0.0210	155	47.4	1.53	1.03	56	12.5
0.25	19/0.12 (19/36)	0.57	0.62	0.225	0.0245	111	33.8	2.07	1.39	78	17.5

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