

Resistivity of Nickel Chrome (Nichrome) alloy Electrical Heating Resistance Wire

Dia. (mm)	sectional area (mm ²)	superficial area of per meter (cm ² /m)	Cr20Ni80,Cr30Ni70,Cr15Ni60 Resistance Wire			Cr20Ni30,Cr20Ni35 Resistance Wire		
			Resistivity μΩ • m 1.09~1.20 ±0.05			Resistivity μΩ • m 1.04-1.06 ±0.05		
			20 ℃ Resistivity per meter (Ω/m)	Length per KG (m/kg)	Weight per meter (kg/m)	20 ℃ Resistivity per meter (Ω/m)	Length per KG (m/kg)	Weight per meter (kg/m)
0.10	0.0078	3.14	143.9	15578	0.0000641	132.4	16228	0.0000616
0.12	0.0113	3.77	99.90	10753	0.0000929	91.96	11202	0.0000892
0.15	0.0177	4.71	63.94	6865	0.0001456	58.85	7151.5	0.000140
0.17	0.0227	5.34	9.78	5353	0.0001868	45.82	5576.3	0.000179
0.19	0.0284	5.97	39.85	4278	0.0002337	36.86	4457.1	0.000224
0.21	0.0346	6.60	29.72	3198	0.0003126	27.36	3331.1	0.000300
0.25	0.0491	7.85	22.86	2475	0.000404	21.19	2578.1	0.000388
0.27	0.0573	8.48	18.35	1973	0.0005068	16.89	2054.9	0.000487
0.29	0.0661	9.11	15.98	1718	0.000582	14.71	1790.7	0.000558
0.31	0.0755	9.74	14.05	1511	0.0006618	12.93	1574.4	0.000635
0.35	0.0962	11.00	11.74	1263	0.0007917	10.81	1315.8	0.000760
0.40	0.1257	12.57	8.992	966.6	0.001035	8.276	1007.0	0.000993
0.45	0.1590	14.14	7.105	764.2	0.001309	6.539	796.1	0.00126
0.50	0.1963	15.71	5.755	619.0	0.001616	5.297	644.8	0.00155
0.60	0.283	18.85	4.103	429.4	0.002329	3.749	447.3	0.00224
0.70	0.385	22.0	3.014	315.6	0.003169	2.754	328.8	0.00304
0.80	0.503	25.1	2.308	241.6	0.004139	2.109	251.7	0.00397
0.90	0.636	28.3	1.823	191.0	0.005236	1.666	199.0	0.00503
1.00	0.785	31.4	1.477	154.8	0.006460	1.350	161.3	0.00620
1.20	1.131	37.7	0.999	107.4	0.009311	0.9196	111.9	0.00894
1.40	1.539	44.0	0.734	78.95	0.01267	0.6756	82.25	0.01216
1.60	3.01	50.3	0.562	60.45	0.01654	0.5173	62.98	0.01588
1.80	2.54	56.5	0.444	47.84	0.02090	0.4087	49.84	0.02006
2.00	3.14	62.8	0.360	38.70	0.02584	0.3310	40.31	0.02408
2.20	3.80	69.1	0.297	31.98	0.03127	0.2736	33.31	0.03002
2.50	4.91	78.5	0.2053	22.89	0.04369	0.2109	23.84	0.04195
2.80	6.16	88.0	0.184	19.73	0.05068	0.1689	20.55	0.04866
3.00	7.07	94.2	0.160	17.19	0.05817	0.1471	17.90	0.05587
3.50	9.62	110.0	0.117	12.63	0.07918	0.1081	13.16	0.07599
4.00	12.57	125.7	0.090	9.667	0.1034	0.08276	10.07	0.09930
4.50	15.90	141.4	0.071	7.642	0.1309	0.06539	7.961	0.1256
5.00	19.63	157.1	0.056	6.190	0.1616	0.05297	6.448	0.1551
5.50	23.80	172.8	0.049	5.105	0.1959	0.04462	5.319	0.1880
6.00	28.30	188.5	0.041	4.294	0.2329	0.03749	4.473	0.2236
6.50	33.20	204	0.035	3.660	0.2732	0.03194	3.813	0.2623
7.00	38.50	220	0.030	3.156	0.3169	0.02754	3.288	0.3041