9. Tables

The tables show metric values for wire and ribbon. There are other editions of this handbook for Imperial values (SWG and B&S).

For dimensions in the range 0.12-0.010 mm *0.0047-0.0004 in,* we recommend the Kanthal Precision Technology Handbook. The larger dimensions and different elements are described more in detail in the Kanthal Handbook Resistance Heating Alloys and Systems for Industrial Furnaces.

For each table is indicated whether there are standard stock items or not. Standard stock items may be changed without notice. Please ask Kanthal for the latest updated stock list. Standard stock items are normally supplied directly on order, while non-standard dimensions may take a bit longer.

Kanthal can supply any dimension on request, provided the volume is large enough.

KANTHAL A-1, APM
Wire

Standard stock items	Alloy	Diameter range mm	Resistivity Ωmm²m⁻¹	Density gcm⁻³
■	KANTHAL A-1	10.0-0.050	1.45	7.10
■	KANTHAL APM	10.0-0.20	1.45	7.10

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300	1400
C_t	1.00	1.00	1.00	1.00	1.00	1.01	1.02	1.02	1.03	1.03	1.04	1.04	1.04	1.04	1.05

Diameter mm A-1	APM	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
10.0	10.0	0.0185	17017	558	314	78.5
9.5	9.5	0.0205	14590	503	298	70.9
	9.27	0.0215	13555	479	291	67.5
8.25	8.25	0.0271	9555	380	259	53.5
8.0	8.0	0.0288	8713	357	251	50.3
7.35	7.35	0.0342	6757	301	231	42.4
7.0	7.0	0.0377	5837	273	220	38.5
6.54		0.0432	4760	239	205	33.6
6.5	6.5	0.0437	4673	236	204	33.2
6.0	6.0	0.0513	3676	201	188	28.3
5.83		0.0543	3372	190	183	26.7
5.5	5.5	0.0610	2831	169	173	23.8
5.0	5.0	0.0738	2127	139	157	19.6
4.75	4.75	0.0818	1824	126	149	17.7
4.62		0.0865	1678	119	145	16.8
4.5	4.5	0.0912	1551	113	141	15.9
4.25	4.25	0.102	1306	101	134	14.2
4.11		0.109	1181	94.2	129	13.3
4.06		0.112	1139	91.9	128	12.9
4.0	4.0	0.115	1089	89.2	126	12.6
3.75	3.75	0.131	897	78.4	118	11.0
3.65		0.139	827	74.3	115	10.5
3.5	3.5	0.151	730	68.3	110	9.62
3.35		0.165	640	62.6	105	8.81
3.25	3.25	0.175	584	58.9	102	8.30
3.2		0.180	558	57.1	101	8.04

Diameter mm A-1	APM	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
3.0	3.0	0.205	459	50.2	94.2	7.07
2.95		0.212	437	48.5	92.7	6.83
2.9	2.9	0.220	415	46.9	91.1	6.61
2.8	2.8	0.235	374	43.7	88.0	6.16
2.65		0.263	317	39.2	83.3	5.52
2.6	2.6	0.273	299	37.7	81.7	5.31
2.5	2.5	0.295	266	34.9	78.5	4.91
2.4		0.321	235	32.1	75.4	4.52
2.34		0.337	218	30.5	73.5	4.30
2.3	2.3	0.349	207	29.5	72.3	4.15
2.25		0.365	194	28.2	70.7	3.98
2.2	2.2	0.381	181	27.0	69.1	3.80
2.05		0.439	147	23.4	64.4	3.30
2.03		0.448	142	23.0	63.8	3.24
2.0	2.0	0.462	136	22.3	62.8	3.14
1.83		0.551	104	18.7	57.5	2.63
1.8	1.8	0.570	99	18.1	56.5	2.54
1.7	1.7	0.639	83.6	16.1	53.4	2.27
1.6		0.695	73.7	14.8	51.2	2.09
1.6		0.721	69.7	14.3	50.3	2.01
1.5	1.5	0.821	57.4	12.5	47.1	1.77
1.4		0.942	46.7	10.9	44.0	1.54
1.3		1.09	37.4	9.42	40.8	1.33
1.2	1.2	1.28	29.4	8.03	37.7	1.13
1.1		1.53	22.6	6.75	34.6	0.950
1.0	1.0	1.85	17.0	5.58	31.4	0.785

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm²)

KANTHAL A, AF, AE
Wire

Standard stock items	Alloy	Diameter range mm	Resistivity $\Omega mm^2 m^{-1}$	Density gcm^{-3}
■	KANTHAL A	10.0-0.05	1.39	7.15
■	KANTHAL AF	10.0-0.10	1.39	7.15
–	KANTHAL AE	10.0-0.20	1.39	7.15

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
C_t	1.00	1.00	1.01	1.01	1.02	1.03	1.04	1.04	1.05	1.05	1.06	1.06	1.06	1.06

Diameter mm A	AF	at 20 °C Ω/m	Resistance cm^2/Ω[1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
10	10.0	0.0177	17751	562	314	78.
	8.25	0.0260	9968	382	259	53.5
	8.0	0.0277	9089	359	251	50.3
	7.5	0.0315	7489	316	236	44.2
	7.35	0.0328	7048	303	231	42.4
	7.0	0.0361	6089	275	220	38.5
	6.54	0.0414	4965	240	205	33.6
	6.5	0.0419	4875	237	204	33.2
	6.0	0.0492	3834	202	188	28.3
	5.83	0.0521	3517	191	183	26.7
	5.5	0.0585	2953	170	173	23.8
	5.2	0.0655	2496	152	163	21.2
	5.0	0.0708	2219	140	157	19.6
	4.75	0.0784	1902	127	149	17.7
	4.62	0.0829	1750	120	145	16.8
	4.5	0.0874	1618	114	141	15.9
	4.25	0.0980	1363	101	134	14.2
	4.11	0.105	1232	94.9	129	13.3
	4.0	0.111	1136	89.8	126	12.6
	3.75	0.126	936	79.0	118	11.0
	3.65	0.133	863	74.8	115	10.5
	3.5	0.144	761	68.8	110	9.62
	3.25	0.168	609	59.3	102	8.30
	3.2	0.173	582	57.5	101	8.04
	3.0	0.197	479	50.5	94.2	7.07
	2.9	0.210	433	47.2	91.1	6.61
	2.8	0.226	390	44.0	88.0	6.16
	2.6	0.262	312	38.0	81.7	5.31
	2.5	0.283	277	35.1	78.5	4.91
	2.4	0.307	245	32.3	75.4	4.52
	2.3	0.335	216	29.7	72.3	4.15
	2.25	0.350	202	28.4	70.7	3.98
	2.2	0.366	189	27.2	69.1	3.80
	2.0	0.442	142	22.5	62.8	3.14
	1.8	0.546	104	18.2	56.5	2.54
	1.7	0.612	87.2	16.2	53.4	2.27
	1.65	0.650	79.7	15.3	51.8	2.14
	1.6	0.691	72.7	14.4	50.3	2.01
	1.5	0.787	59.9	12.6	47.1	1.77
	1.4	0.903	48.7	11.0	44.0	1.54
	1.3	1.05	39.0	9.49	40.8	1.33
	1.2	1.23	30.7	8.09	37.7	1.13
	1.1	1.46	23.6	6.79	34.6	0.950
	1.0	1.77	17.8	5.62	31.4	0.785
	0.95	1.96	15.2	5.07	29.8	0.709
0.90	0.90	2.18	12.9	4.55	28.3	0.636
0.85	0.85	2.45	10.9	4.06	26.7	0.567
0.80	0.80	2.77	9.09	3.59	25.1	0.503
0.75	0.75	3.15	7.49	3.16	23.6	0.442
0.70	0.70	3.61	6.09	2.75	22.0	0.385
0.65	0.65	4.19	4.87	2.37	20.4	0.332
0.60	0.60	4.92	3.83	2.02	18.8	0.283
0.55	0.55	5.85	2.95	1.70	17.3	0.238
0.50	0.50	7.08	2.22	1.40	15.7	0.196
0.45	0.45	8.74	1.62	1.14	14.1	0.159
0.40	0.40	11.1	1.14	0.898	12.6	0.126
0.35	0.35	14.4	0.761	0.688	11.0	0.0962
0.30	0.30	19.7	0.479	0.505	9.42	0.0707
0.25		28.3	0.277	0.351	7.85	0.0491
0.20		44.2	0.142	0.225	6.28	0.0314
0.15		78.7	0.0599	0.126	4.71	0.0177

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

KANTHAL A, AF, AE
Ribbon

Alloy	Resistivity Ωmm²m⁻¹	Density gcm⁻³
KANTHAL A, AF, AE	1.39	7.15

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
C_t	1.00	1.00	1.01	1.01	1.02	1.03	1.04	1.04	1.05	1.05	1.06	1.06	1.06	1.06

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
4	1.0	0.378	265	26.3	100	3.68
	0.90	0.420	234	23.7	98.0	3.31
	0.80	0.472	203	21.0	96.0	2.94
	0.70	0.540	174	18.4	94.0	2.58
	0.60	0.630	146	15.8	92.0	2.21
	0.50	0.755	119	13.2	90.0	1.84
	0.40	0.944	93.2	10.5	88.0	1.47
	0.30	1.26	68.3	7.89	86.0	1.10
	0.20	1.89	44.5	5.26	84.0	0.736
	0.15	2.52	33.0	3.95	83.0	0.552
	0.10	3.78	21.7	2.63	82.0	0.368
3	1.0	0.504	159	19.7	80.0	2.76
	0.90	0.560	139	17.8	78.0	2.48
	0.80	0.630	121	15.8	76.0	2.21
	0.70	0.719	103	13.8	74.0	1.93
	0.60	0.839	85.8	11.8	72.0	1.66
	0.50	1.01	69.5	9.87	70.0	1.38
	0.40	1.26	54.0	7.89	68.0	1.10
	0.30	1.68	39.3	5.92	66.0	0.828
	0.20	2.52	25.4	3.95	64.0	0.552
	0.15	3.36	18.8	2.96	63.0	0.414
	0.10	5.04	12.3	1.97	62.0	0.276
2.5	1.0	0.604	116	16.4	70.0	2.30
	0.90	0.671	101	14.8	68.0	2.07
	0.80	0.755	87.4	13.2	66.0	1.84
	0.70	0.863	74.1	11.5	64.0	1.61
	0.60	1.01	61.6	9.87	62.0	1.38
	0.50	1.21	49.6	8.22	60.0	1.15
	0.40	1.51	38.4	6.58	58.0	0.920
	0.30	2.01	27.8	4.93	56.0	0.690
	0.20	3.02	17.9	3.29	54.0	0.460
	0.15	4.03	13.2	2.47	53.0	0.345
	0.10	6.04	8.60	1.64	52.0	0.230
2.0	1.0	0.755	79.4	13.2	60.0	1.84
	0.90	0.839	69.1	11.8	58.0	1.66
	0.80	0.944	59.3	10.5	56.0	1.47
	0.70	1.08	50.0	9.21	54.0	1.29
	0.60	1.26	41.3	7.89	52.0	1.10
	0.50	1.51	33.1	6.58	50.0	0.920
	0.40	1.89	25.4	5.26	48.0	0.736
	0.30	2.52	18.3	3.95	46.0	0.552
	0.20	3.78	11.6	2.63	44.0	0.368
	0.15	5.04	8.54	1.97	43.0	0.276
2.0	0.10	7.55	5.56	1.32	42.0	0.184
1.8	1.0	0.839	66.7	11.8	56.0	1.66
	0.90	0.933	57.9	10.7	54.0	1.49
	0.80	1.05	49.6	9.47	52.0	1.32
	0.70	1.20	41.7	8.29	50.0	1.16
	0.60	1.40	34.3	7.10	48.0	0.994
	0.50	1.68	27.4	5.92	46.0	0.828
	0.40	2.10	21.0	4.74	44.0	0.662
	0.30	2.80	15.0	3.55	42.0	0.497
	0.20	4.20	9.53	2.37	40.0	0.331
	0.15	5.60	6.97	1.78	39.0	0.248
	0.10	8.39	4.53	1.18	38.0	0.166
1.5	1.0	1.01	49.6	9.87	50.0	1.38
	0.90	1.12	42.9	8.88	48.0	1.24
	0.80	1.26	36.5	7.89	46.0	1.10
	0.70	1.44	30.6	6.91	44.0	0.966
	0.60	1.68	25.0	5.92	42.0	0.828
	0.50	2.01	19.9	4.93	40.0	0.690
	0.40	2.52	15.1	3.95	38.0	0.552
	0.30	3.36	10.7	2.96	36.0	0.414
	0.20	5.04	6.75	1.97	34.0	0.276
	0.15	6.71	4.91	1.48	33.0	0.207
	0.10	10.1	3.18	0.987	32.0	0.138
	0.090	11.2	2.84	0.888	31.8	0.124
	0.080	12.6	2.51	0.789	31.6	0.110
1.2	0.80	1.57	25.4	6.31	40.0	0.883
	0.70	1.80	21.1	5.53	38.0	0.773
	0.60	2.10	17.2	4.74	36.0	0.662
	0.50	2.52	13.5	3.95	34.0	0.552
	0.40	3.15	10.2	3.16	32.0	0.442
	0.30	4.20	7.15	2.37	30.0	0.331
	0.20	6.30	4.45	1.58	28.0	0.221
	0.15	8.39	3.22	1.18	27.0	0.166
	0.10	12.6	2.07	0.789	26.0	0.110
	0.090	14.0	1.84	0.710	25.8	0.0994
	0.080	15.7	1.63	0.631	25.6	0.0883
	0.070	18.0	1.41	0.553	25.4	0.0773
1.0	0.80	1.89	19.1	5.26	36.0	0.736
	0.70	2.16	15.8	4.60	34.0	0.644
	0.60	2.52	12.7	3.95	32.0	0.552
	0.50	3.02	9.93	3.29	30.0	0.460
	0.40	3.78	7.41	2.63	28.0	0.368
	0.30	5.04	5.16	1.97	26.0	0.276

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

(cont.)

(cont.)

KANTHAL A, AF, AE
Ribbon

Alloy	Resistivity Ωmm^2m^{-1}	Density gcm^{-3}
KANTHAL A, AF, AE	1.39	7.15

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
C_t	1.00	1.00	1.01	1.01	1.02	1.03	1.04	1.04	1.05	1.05	1.06	1.06	1.06	1.06

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
	0.20	7.55	3.18	1.32	24.0	0.184
	0.15	10.1	2.28	0.987	23.0	0.138
1.0	0.10	15.1	1.46	0.658	22.0	0.0920
	0.090	16.8	1.30	0.592	21.8	0.0828
	0.080	18.9	1.14	0.526	21.6	0.0736
	0.070	21.6	0.991	0.460	21.4	0.0644
	0.060	25.2	0.842	0.395	21.2	0.0552
	0.050	30.2	0.695	0.329	21.0	0.0460
0.9	0.70	2.40	13.3	4.14	32.0	0.580
	0.60	2.80	10.7	3.55	30.0	0.497
	0.50	3.36	8.34	2.96	28.0	0.414
	0.40	4.20	6.20	2.37	26.0	0.331
	0.30	5.60	4.29	1.78	24.0	0.248
	0.20	8.39	2.62	1.18	22.0	0.166
	0.15	11.2	1.88	0.888	21.0	0.124
	0.10	16.8	1.19	0.592	20.0	0.0828
	0.090	18.7	1.06	0.533	19.8	0.0745
	0.080	21.0	0.934	0.474	19.6	0.0662
	0.070	24.0	0.809	0.414	19.4	0.0580
	0.060	28.0	0.686	0.355	19.2	0.0497
	0.050	33.6	0.566	0.296	19.0	0.0414
0.8	0.70	2.70	11.1	3.68	30.0	0.515
	0.60	3.15	8.90	3.16	28.0	0.442
	0.50	3.78	6.88	2.63	26.0	0.368
	0.40	4.72	5.08	2.10	24.0	0.294
	0.30	6.30	3.49	1.58	22.0	0.221
	0.20	9.44	2.12	1.05	20.0	0.147
	0.15	12.6	1.51	0.789	19.0	0.110
	0.10	18.9	0.953	0.526	18.0	0.0736
	0.090	21.0	0.848	0.474	17.8	0.0662
	0.080	23.6	0.746	0.421	17.6	0.0589
	0.070	27.0	0.645	0.368	17.4	0.0515
	0.060	31.5	0.546	0.316	17.2	0.0442
	0.050	37.8	0.450	0.263	17.0	0.0368
0.7	0.60	3.60	7.23	2.76	26.0	0.386
	0.50	4.32	5.56	2.30	24.0	0.322
	0.40	5.40	4.08	1.84	22.0	0.258
	0.30	7.19	2.78	1.38	20.0	0.193
	0.20	10.8	1.67	0.921	18.0	0.129
	0.15	14.4	1.18	0.691	17.0	0.097
	0.10	21.6	0.741	0.460	16.0	0.0644
	0.090	24.0	0.659	0.414	15.8	0.0580
	0.080	27.0	0.578	0.368	15.6	0.0515

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
0.7	0.070	30.8	0.499	0.322	15.4	0.0451
	0.060	36.0	0.423	0.276	15.2	0.0386
	0.050	43.2	0.347	0.230	15.0	0.0322
0.6	0.50	5.0	4.37	1.97	22.0	0.276
	0.40	6.3	3.18	1.58	20.0	0.221
	0.30	8.4	2.14	1.18	18.0	0.166
	0.20	12.6	1.27	0.789	16.0	0.110
	0.15	16.8	0.894	0.592	15.0	0.0828
	0.10	25.2	0.556	0.395	14.0	0.0552
	0.090	28.0	0.493	0.355	13.8	0.0497
	0.080	31.5	0.432	0.316	13.6	0.0442
	0.070	36.0	0.373	0.276	13.4	0.0386
	0.060	42.0	0.315	0.237	13.2	0.0331
	0.050	50.4	0.258	0.197	13.0	0.0276
	0.040	63.0	0.203	0.158	12.8	0.0221
0.5	0.30	10.1	1.59	0.987	16.0	0.138
	0.20	15.1	0.927	0.658	14.0	0.0920
	0.15	20.1	0.645	0.493	13.0	0.0690
	0.10	30.2	0.397	0.329	12.0	0.0460
	0.090	33.6	0.351	0.296	11.8	0.0414
	0.080	37.8	0.307	0.263	11.6	0.0368
	0.070	43.2	0.264	0.230	11.4	0.0322
	0.060	50.4	0.222	0.197	11.2	0.0276
	0.050	60.4	0.182	0.164	11.0	0.0230
	0.040	75.5	0.143	0.132	10.8	0.0184
0.4	0.30	12.6	1.11	0.789	14.0	0.110
	0.20	18.9	0.635	0.526	12.0	0.0736
	0.15	25.2	0.437	0.395	11.0	0.0552
	0.10	37.8	0.265	0.263	10.0	0.0368
	0.090	42.0	0.234	0.237	9.80	0.0331
	0.080	47.2	0.203	0.210	9.60	0.0294
	0.070	54.0	0.174	0.184	9.40	0.0258
	0.060	63.0	0.146	0.158	9.20	0.0221
	0.050	75.5	0.119	0.132	9.00	0.0184
0.3	0.20	25.2	0.397	0.395	10.0	0.0552
	0.15	33.6	0.268	0.296	9.00	0.0414
	0.10	50.4	0.159	0.197	8.00	0.0276
	0.090	56.0	0.139	0.178	7.80	0.0248
	0.080	63.0	0.121	0.158	7.60	0.0221
	0.070	71.9	0.103	0.138	7.40	0.0193
	0.060	83.9	0.0858	0.118	7.20	0.0166
	0.050	101	0.0695	0.0987	7.00	0.0138

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

KANTHAL D
Wire

Standard stock items	Alloy	Diameter range mm	Resistivity $\Omega mm^2 m^{-1}$	Density gcm^{-3}
■	D	8.0-0.020	1.35	7.25

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
C_t	1.00	1.00	1.01	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.07	1.07	1.08	1.08

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
8.0	0.0269	9358	364	251	50.3
6.5	0.0407	5019	241	204	33.2
6.0	0.0477	3948	205	188	28.3
5.5	0.0568	3041	172	173	23.8
5.0	0.0688	2285	142	157	19.6
4.75	0.0762	1959	128	149	17.7
4.5	0.0849	1666	115	141	15.9
4.25	0.0952	1403	103	134	14.2
4.06	0.104	1223	93.9	128	12.9
4.0	0.107	1170	91.1	126	12.6
3.75	0.122	964	80.1	118	11.0
3.65	0.129	889	75.9	115	10.5
3.5	0.140	784	69.8	110	9.62
3.25	0.163	627	60.1	102	8.30
3.0	0.191	493	51.2	94.2	7.07
2.95	0.198	469	49.6	92.7	6.8
2.8	0.219	401	44.6	88.0	6.16
2.65	0.245	340	40.0	83.3	5.5
2.5	0.275	286	35.6	78.5	4.91
2.0	0.430	146	22.8	62.8	3.14
1.8	0.531	107	18.4	56.5	2.54
1.7	0.595	89.8	16.5	53.4	2.27
1.6	0.671	74.9	14.6	50.3	2.01
1.5	0.764	61.7	12.8	47.1	1.77
1.4	0.877	50.2	11.2	44.0	1.54
1.3	1.02	40.2	9.62	40.8	1.33
1.2	1.19	31.6	8.20	37.7	1.13
1.1	1.42	24.3	6.89	34.6	0.950

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
1.0	1.72	18.3	5.69	31.4	0.785
0.95	1.90	15.7	5.14	29.8	0.709
0.90	2.12	13.3	4.61	28.3	0.636
0.85	2.38	11.2	4.11	26.7	0.567
0.80	2.69	9.36	3.64	25.1	0.503
0.75	3.06	7.71	3.20	23.6	0.442
0.70	3.51	6.27	2.79	22.0	0.385
0.65	4.07	5.02	2.41	20.4	0.332
0.60	4.77	3.95	2.05	18.8	0.283
0.55	5.68	3.04	1.72	17.3	0.238
0.50	6.88	2.28	1.42	15.7	0.196
0.45	8.49	1.67	1.15	14.1	0.159
0.42	9.74	1.35	1.00	13.2	0.139
0.40	10.7	1.17	0.911	12.6	0.126
0.35	14.0	0.784	0.698	11.0	0.0962
0.32	16.8	0.599	0.583	10.1	0.0804
0.30	19.1	0.493	0.512	9.42	0.0707
0.28	21.9	0.401	0.446	8.80	0.061
0.25	27.5	0.286	0.356	7.85	0.0491
0.22	35.5	0.195	0.276	6.91	0.0380
0.20	43.0	0.146	0.228	6.28	0.0314
0.19	47.6	0.125	0.206	5.97	0.0284
0.18	53.1	0.107	0.184	5.65	0.0254
0.17	59.5	0.0898	0.165	5.34	0.0227
0.16	67.1	0.0749	0.146	5.03	0.0201
0.15	76.4	0.0617	0.128	4.71	0.0177
0.14	87.7	0.0502	0.112	4.40	0.0154
0.13	102	0.0402	0.0962	4.08	0.0133

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

KANTHAL D, DT
Ribbon

Alloy	Resistivity Ωmm^2m^{-1}	Density gcm^{-3}
KANTHAL D	1.39	7.25
KANTAHL DT	1.37	7.25

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
C_t	1.00	1.00	1.01	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.07	1.07	1.08	1.08

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
4	1.0	0.367	273	26.7	100	3.68
	0.90	0.408	240	24.0	98.0	3.31
	0.80	0.459	209	21.3	96.0	2.94
	0.70	0.524	179	18.7	94.0	2.58
	0.60	0.611	150	16.0	92.0	2.21
	0.50	0.734	123	13.3	90.0	1.84
	0.40	0.917	96.0	10.7	88.0	1.47
	0.30	1.22	70.3	8.00	86.0	1.10
	0.20	1.83	45.8	5.34	84.0	0.736
	0.15	2.45	33.9	4.00	83.0	0.552
	0.10	3.67	22.4	2.67	82.0	0.368
3	1.0	0.489	164	20.0	80.0	2.76
	0.90	0.543	144	18.0	78.0	2.48
	0.80	0.611	124	16.0	76.0	2.21
	0.70	0.699	106	14.0	74.0	1.93
	0.60	0.815	88.3	12.0	72.0	1.66
	0.50	0.978	71.6	10.0	70.0	1.38
	0.40	1.22	55.6	8.0	68.0	1.10
	0.30	1.63	40.5	6.0	66.0	0.828
	0.20	2.45	26.2	4.0	64.0	0.552
	0.15	3.26	19.3	3.0	63.0	0.414
	0.10	4.89	12.7	2.0	62.0	0.276
2.5	1.0	0.587	119	16.7	70.0	2.30
	0.90	0.652	104	15.0	68.0	2.07
	0.80	0.734	90.0	13.3	66.0	1.84
	0.70	0.839	76.3	11.7	64.0	1.61
	0.60	0.978	63.4	10.0	62.0	1.38
	0.50	1.17	51.1	8.34	60.0	1.15
	0.40	1.47	39.5	6.67	58.0	0.920
	0.30	1.96	28.6	5.00	56.0	0.690
	0.20	2.93	18.4	3.34	54.0	0.460
	0.15	3.91	13.5	2.50	53.0	0.345
	0.10	5.87	8.86	1.67	52.0	0.230
2.25	1.0	0.652	99.7	15.0	65.0	2.07
	0.90	0.725	86.9	13.5	63.0	1.86
	0.80	0.815	74.8	12.0	61.0	1.66
	0.70	0.932	63.3	10.5	59.0	1.45
	0.60	1.09	52.4	9.00	57.0	1.24
	0.50	1.30	42.2	7.50	55.0	1.04
	0.40	1.63	32.5	6.00	53.0	0.828
	0.30	2.17	23.5	4.50	51.0	0.621
	0.20	3.26	15.0	3.00	49.0	0.414

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
2,25	0.15	4.35	11.0	2.25	48.0	0.311
	0.10	6.52	7.21	1.50	47.0	0.207
2.0	1.0	0.734	81.8	13.3	60.0	1.84
	0.90	0.815	71.1	12.0	58.0	1.66
	0.80	0.917	61.1	10.7	56.0	1.47
	0.70	1.05	51.5	9.34	54.0	1.29
	0.60	1.22	42.5	8.00	52.0	1.10
	0.50	1.47	34.1	6.67	50.0	0.920
	0.40	1.83	26.2	5.34	48.0	0.736
	0.30	2.45	18.8	4.00	46.0	0.552
	0.20	3.67	12.0	2.67	44.0	0.368
	0.15	4.89	8.79	2.00	43.0	0.276
	0.10	7.34	5.72	1.33	42.0	0.184
1.75	1.0	0.839	65.6	11.7	55.0	1.61
	0.90	0.932	56.9	10.5	53.0	1.45
	0.80	1.05	48.7	9.34	51.0	1.29
	0.70	1.20	40.9	8.17	49.0	1.13
	0.60	1.40	33.6	7.00	47.0	0.966
	0.50	1.68	26.8	5.84	45.0	0.805
	0.40	2.10	20.5	4.67	43.0	0.644
	0.30	2.80	14.7	3.50	41.0	0.483
	0.20	4.19	9.30	2.33	39.0	0.322
	0.15	5.59	6.80	1.75	38.0	0.242
	0.10	8.39	4.41	1.17	37.0	0.161
1.5	0.70	1.40	31.5	7.00	44.0	0.966
	0.60	1.63	25.8	6.00	42.0	0.828
	0.50	1.96	20.4	5.00	40.0	0.690
	0.40	2.45	15.5	4.00	38.0	0.552
	0.30	3.26	11.0	3.00	36.0	0.414
	0.20	4.89	6.95	2.00	34.0	0.276
	0.15	6.52	5.06	1.50	33.0	0.207
	0.10	9.78	3.27	1.00	32.0	0.138
	0.090	10.9	2.93	0.900	31.8	0.124
	0.080	12.2	2.58	0.800	31.6	0.110
1.25	0.60	1.96	18.9	5.00	37.0	0.690
	0.50	2.35	14.9	4.17	35.0	0.575
	0.40	2.93	11.2	3.34	33.0	0.460
	0.30	3.91	7.92	2.50	31.0	0.345
	0.20	5.87	4.94	1.67	29.0	0.230
	0.15	7.83	3.58	1.25	28.0	0.173
	0.10	11.7	2.30	0.834	27.0	0.115
	0.090	13.0	2.05	0.750	26.8	0.104

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C^t = temperature factor, p = surface load W/cm^2)

(cont.)

(cont.)

KANTHAL D, DT
Ribbon

Alloy	Resistivity Ωmm²m⁻¹	Density gcm⁻³
KANTHAL D	1.39	7.25
KANTAHL DT	1.37	7.25

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200	1300
C_t	1.00	1.00	1.01	1.01	1.02	1.03	1.04	1.05	1.06	1.07	1.07	1.07	1.08	1.08

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
1.25	0.080	14.7	1.81	0.667	26.6	0.0920
	0.070	16.8	1.57	0.584	26.4	0.0805
1.0	0.60	2.45	13.1	4.00	32.0	0.552
	0.50	2.93	10.2	3.34	30.0	0.460
	0.40	3.67	7.63	2.67	28.0	0.368
	0.30	4.89	5.32	2.00	26.0	0.276
	0.20	7.34	3.27	1.33	24.0	0.184
	0.15	9.78	2.35	1.00	23.0	0.138
	0.10	14.7	1.50	0.667	22.0	0.0920
	0.090	16.3	1.34	0.600	21.8	0.0828
	0.080	18.3	1.18	0.534	21.6	0.0736
	0.070	21.0	1.02	0.467	21.4	0.0644
	0.060	24.5	0.867	0.400	21.2	0.0552
	0.050	29.3	0.716	0.334	21.0	0.0460
0.9	0.50	3.26	8.59	3.00	28.0	0.414
	0.40	4.08	6.38	2.40	26.0	0.331
	0.30	5.43	4.42	1.80	24.0	0.248
	0.20	8.15	2.70	1.20	22.0	0.166
	0.15	10.9	1.93	0.900	21.0	0.124
	0.10	16.3	1.23	0.600	20.0	0.0828
	0.090	18.1	1.09	0.540	19.8	0.0745
	0.080	20.4	0.962	0.480	19.6	0.0662
	0.070	23.3	0.833	0.420	19.4	0.0580
	0.060	27.2	0.707	0.360	19.2	0.0497
	0.050	32.6	0.583	0.300	19.0	0.0414
0.8	0.50	3.67	7.09	2.67	26.0	0.368
	0.40	4.59	5.23	2.13	24.0	0.294
	0.30	6.11	3.60	1.60	22.0	0.221
	0.20	9.17	2.18	1.07	20.0	0.147
	0.15	12.2	1.55	0.800	19.0	0.110
	0.10	18.3	0.981	0.534	18.0	0.0736
	0.090	20.4	0.873	0.480	17.8	0.0662
	0.080	22.9	0.768	0.427	17.6	0.0589
	0.070	26.2	0.664	0.374	17.4	0.0515
	0.060	30.6	0.563	0.320	17.2	0.0442
	0.050	36.7	0.463	0.267	17.0	0.0368
0.7	0.40	5.24	4.20	1.87	22.0	0.258
	0.30	6.99	2.86	1.40	20.0	0.193
	0.20	10.5	1.72	0.934	18.0	0.129
	0.15	14.0	1.22	0.700	17.0	0.097
	0.10	21.0	0.763	0.467	16.0	0.0644
	0.090	23.3	0.678	0.420	15.8	0.0580

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
0.7	0.080	26.2	0.595	0.374	15.6	0.0515
	0.070	29.9	0.514	0.327	15.4	0.0451
	0.060	34.9	0.435	0.280	15.2	0.0386
	0.050	41.9	0.358	0.233	15.0	0.0322
0.6	0.40	6.11	3.27	1.60	20.0	0.221
	0.30	8.15	2.21	1.20	18.0	0.166
	0.20	12.2	1.31	0.800	16.0	0.110
	0.15	16.3	0.920	0.600	15.0	0.0828
	0.10	24.5	0.572	0.400	14.0	0.0552
	0.090	27.2	0.508	0.360	13.8	0.0497
	0.080	30.6	0.445	0.320	13.6	0.0442
	0.070	34.9	0.384	0.280	13.4	0.0386
	0.060	40.8	0.324	0.240	13.2	0.0331
	0.050	48.9	0.266	0.200	13.0	0.0276
	0.040	61.1	0.209	0.160	12.8	0.0221
0.5	0.30	9.78	1.64	1.00	16.0	0.138
	0.20	14.7	0.954	0.667	14.0	0.0920
	0.15	19.6	0.664	0.500	13.0	0.0690
	0.10	29.3	0.409	0.334	12.0	0.0460
	0.090	32.6	0.362	0.300	11.8	0.0414
	0.080	36.7	0.316	0.267	11.6	0.0368
	0.070	41.9	0.272	0.233	11.4	0.0322
	0.060	48.9	0.229	0.200	11.2	0.0276
	0.050	58.7	0.187	0.167	11.0	0.0230
	0.040	73.4	0.147	0.133	10.8	0.0184
0.4	0.30	12.2	1.14	0.800	14.0	0.110
	0.20	18.3	0.654	0.534	12.0	0.0736
	0.15	24.5	0.450	0.400	11.0	0.0552
	0.10	36.7	0.273	0.267	10.0	0.0368
	0.090	40.8	0.240	0.240	9.80	0.0331
	0.080	45.9	0.209	0.213	9.60	0.0294
	0.070	52.4	0.179	0.187	9.40	0.0258
	0.060	61.1	0.150	0.160	9.20	0.0221
	0.050	73.4	0.123	0.133	9.00	0.0184
0.3	0.20	24.5	0.409	0.400	10.0	0.0552
	0.15	32.6	0.276	0.300	9.00	0.0414
	0.10	48.9	0.164	0.200	8.00	0.0276
	0.090	54.3	0.144	0.180	7.80	0.0248
	0.080	61.1	0.124	0.160	7.60	0.0221
	0.070	69.9	0.106	0.140	7.40	0.0193
	0.060	81.5	0.0883	0.120	7.20	0.0166
	0.050	97.8	0.0716	0.100	7.00	0.0138

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

ALKROTHAL Wire

Alloy	Diameter range mm	Resistivity $\Omega mm^2 m^{-1}$	Density gcm^{-3}
ALKROTHAL	6.5-0.10	1.25	7.28

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100
C_t	1.00	1.00	1.02	1.03	1.04	1.05	1.08	1.09	1.10	1.11	1.11	1.12

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
6.5	0.0377	5421	242	204	33.2
6.0	0.0442	4264	206	188	28.3
5.5	0.0526	3284	173	173	23.8
5.0	0.0637	2467	143	157	19.6
4.75	0.0705	2115	129	149	17.7
4.5	0.0786	1799	116	141	15.9
4.25	0.0881	1515	103	134	14.2
4.0	0.0995	1263	91.5	126	12.6
3.75	0.113	1041	80.4	118	11.0
3.5	0.130	846	70.0	110	9.62
3.25	0.151	678	60.4	102	8.30
3.0	0.177	533	51.5	94.2	7.07
2.8	0.203	433	44.8	88.0	6.16
2.6	0.235	347	38.7	81.7	5.31
2.5	0.255	308	35.7	78.5	4.91
2.2	0.329	210	27.7	69.1	3.80
2.0	0.398	158	22.9	62.8	3.14
1.9	0.441	135	20.6	59.7	2.84
1.8	0.491	115	18.5	56.5	2.54
1.7	0.551	97.0	16.5	53.4	2.27
1.6	0.622	80.9	14.6	50.3	2.01
1.5	0.707	66.6	12.9	47.1	1.77
1.4	0.812	54.2	11.2	44.0	1.54
1.3	0.942	43.4	9.66	40.8	1.33
1.2	1.11	34.1	8.23	37.7	1.13
1.1	1.32	26.3	6.92	34.6	0.95
1.0	1.59	19.7	5.72	31.4	0.785
0.95	1.76	16.9	5.16	29.8	0.709
0.90	1.96	14.4	4.63	28.3	0.636
0.85	2.20	12.1	4.13	26.7	0.567

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
0.80	2.49	10.1	3.66	25.1	0.503
0.75	2.83	8.33	3.22	23.6	0.442
0.70	3.25	6.77	2.80	22.0	0.385
0.65	3.77	5.42	2.42	20.4	0.332
0.60	4.42	4.26	2.06	18.8	0.283
0.55	5.26	3.28	1.73	17.3	0.238
0.50	6.37	2.47	1.43	15.7	0.196
0.475	7.05	2.12	1.29	14.9	0.177
0.45	7.86	1.80	1.16	14.1	0.159
0.425	8.81	1.52	1.03	13.4	0.142
0.40	9.95	1.26	0.915	12.6	0.126
0.375	11.3	1.04	0.804	11.8	0.110
0.35	13.0	0.846	0.700	11.0	0.0962
0.32	15.5	0.647	0.585	10.1	0.0804
0.30	17.7	0.533	0.515	9.42	0.0707
0.28	20.3	0.433	0.448	8.80	0.0616
0.26	23.5	0.347	0.387	8.17	0.0531
0.25	25.5	0.308	0.357	7.85	0.0491
0.24	27.6	0.273	0.329	7.54	0.0452
0.23	30.1	0.240	0.302	7.23	0.0415
0.22	32.9	0.210	0.277	6.91	0.0380
0.21	36.1	0.183	0.252	6.60	0.0346
0.20	39.8	0.158	0.229	6.28	0.0314
0.19	44.1	0.135	0.206	5.97	0.0284
0.18	49.1	0.115	0.185	5.65	0.0254
0.17	55.1	0.0970	0.165	5.34	0.0227
0.16	62.2	0.0809	0.146	5.03	0.0201
0.15	70.7	0.0666	0.129	4.71	0.0177
0.14	81.2	0.0542	0.112	4.40	0.0154
0.13	94.2	0.0434	0.0966	4.08	0.0133

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C^t = temperature factor, p = surface load W/cm^2)

ALKROTHAL Ribbon

Alloy	Resistivity Ωmm²m⁻¹	Density gcm⁻³
ALKROTHAL	1.25	7.28

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100
C_t	1.00	1.00	1.02	1.03	1.04	1.05	1.08	1.09	1.10	1.11	1.11	1.12

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
4	1.0	0.340	294	26.8	100	3.68
	0.90	0.377	260	24.1	98.0	3.31
	0.80	0.425	226	21.4	96.0	2.94
	0.70	0.485	194	18.8	94.0	2.58
	0.60	0.566	163	16.1	92.0	2.21
	0.50	0.679	132	13.4	90.0	1.84
	0.40	0.849	103.6	10.7	88.0	1.47
	0.30	1.13	76.0	8.04	86.0	1.10
	0.20	1.70	49.5	5.36	84.0	0.736
	0.15	2.26	36.7	4.02	83.0	0.552
	0.10	3.40	24.1	2.67	82.0	0.368
3	1.0	0.453	177	20.1	80.0	2.76
	0.90	0.503	155	18.1	78.0	2.48
	0.80	0.566	134	16.1	76.0	2.21
	0.70	0.647	114	14.1	74.0	1.93
	0.60	0.755	95.4	12.1	72.0	1.66
	0.50	0.906	77.3	10.0	70.0	1.38
	0.40	1.13	60.1	8.0	68.0	1.10
	0.30	1.51	43.7	6.0	66.0	0.828
	0.20	2.26	28.3	4.0	64.0	0.552
	0.15	3.02	20.9	3.0	63.0	0.414
	0.10	4.53	13.7	2.0	62.0	0.276
2.5	1.0	0.543	129	16.7	70.0	2.30
	0.90	0.604	113	15.1	68.0	2.07
	0.80	0.679	97.2	13.4	66.0	1.84
	0.70	0.776	82.4	11.7	64.0	1.61
	0.60	0.906	68.4	10.0	62.0	1.38
	0.50	1.09	55.2	8.37	60.0	1.15
	0.40	1.36	42.7	6.70	58.0	0.920
	0.30	1.81	30.9	5.02	56.0	0.690
	0.20	2.72	19.9	3.35	54.0	0.460
	0.15	3.62	14.6	2.51	53.0	0.345
	0.10	5.43	9.57	1.67	52.0	0.230
2.25	1.0	0.604	107.6	15.1	65.0	2.07
	0.90	0.671	93.9	13.6	63.0	1.86
	0.80	0.755	80.8	12.1	61.0	1.66
	0.70	0.863	68.4	10.5	59.0	1.45
	0.60	1.006	56.6	9.0	57.0	1.24
	0.50	1.208	45.5	7.5	55.0	1.04
	0.40	1.510	35.1	6.0	53.0	0.828
	0.30	2.013	25.3	4.5	51.0	0.621
	0.20	3.019	16.2	3.0	49.0	0.414

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
2.25	0.15	4.026	11.9	2.3	48.0	0.311
	0.10	6.52	7.21	1.5	47.0	0.207
2.0	1.0	0.679	88.3	13.4	60.0	1.84
	0.90	0.755	76.8	12.1	58.0	1.66
	0.80	0.849	65.9	10.7	56.0	1.47
	0.70	0.970	55.6	9.4	54.0	1.29
	0.60	1.13	45.9	8.04	52.0	1.10
	0.50	1.36	36.8	6.70	50.0	0.920
	0.40	1.70	28.3	5.36	48.0	0.736
	0.30	2.26	20.3	4.02	46.0	0.552
	0.20	3.40	13.0	2.68	44.0	0.368
	0.15	4.53	9.5	2.01	43.0	0.276
	0.10	7.34	5.72	1.34	42.0	0.184
1.75	1.0	0.776	70.8	11.7	55.0	1.61
	0.90	0.863	61.4	10.5	53.0	1.45
	0.80	0.970	52.6	9.4	51.0	1.29
	0.70	1.11	44.2	8.20	49.0	1.13
	0.60	1.29	36.3	7.03	47.0	0.966
	0.50	1.55	29.0	5.86	45.0	0.805
	0.40	1.94	22.2	4.69	43.0	0.644
	0.30	2.59	15.8	3.52	41.0	0.483
	0.20	3.88	10.0	2.34	39.0	0.322
	0.15	5.18	7.34	1.76	38.0	0.242
	0.10	8.39	4.41	1.17	37.0	0.161
1.5	0.70	1.29	34.0	7.04	44.0	0.966
	0.60	1.51	27.8	6.03	42.0	0.828
	0.50	1.81	22.1	5.03	40.0	0.690
	0.40	2.26	16.8	4.02	38.0	0.552
	0.30	3.02	11.9	3.02	36.0	0.414
	0.20	4.53	7.51	2.01	34.0	0.276
	0.15	6.04	5.46	1.51	33.0	0.207
	0.10	9.06	3.53	1.01	32.0	0.138
	0.090	10.1	3.16	0.905	31.8	0.124
	0.080	11.3	2.79	0.805	31.6	0.110
1.25	0.60	1.81	20.4	5.02	37.0	0.690
	0.50	2.17	16.1	4.19	35.0	0.575
	0.40	2.72	12.1	3.35	33.0	0.460
	0.30	3.62	8.56	2.51	31.0	0.345
	0.20	5.43	5.34	1.67	29.0	0.230
	0.15	7.25	3.86	1.26	28.0	0.173
	0.10	10.9	2.48	0.837	27.0	0.115
	0.090	12.1	2.22	0.753	26.8	0.104

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

(cont.)

(cont.)

ALKROTHAL Ribbon

Alloy	Resistivity Ωmm^2m^{-1}	Density gcm^{-3}
ALKROTHAL	1.25	7.28

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100
C_t	1.00	1.00	1.02	1.03	1.04	1.05	1.08	1.09	1.10	1.11	1.11	1.12

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm^2/Ω[1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
1.25	0.080	13.6	1.96	0.670	26.6	0.0920
	0.070	15.5	1.70	0.586	26.4	0.0805
1.0	0.60	2.26	14.1	4.02	32.0	0.552
	0.50	2.72	11.0	3.35	30.0	0.460
	0.40	3.40	8.24	2.68	28.0	0.368
	0.30	4.53	5.74	2.01	26.0	0.276
	0.20	6.79	3.53	1.34	24.0	0.184
	0.15	9.06	2.54	1.00	23.0	0.138
	0.10	13.6	1.62	0.670	22.0	0.0920
	0.090	15.1	1.44	0.603	21.8	0.0828
	0.080	17.0	1.27	0.536	21.6	0.0736
	0.070	19.4	1.10	0.469	21.4	0.0644
	0.060	22.6	0.936	0.402	21.2	0.0552
	0.050	29.3	0.716	0.335	21.0	0.0460
0.9	0.50	3.02	9.27	3.01	28.0	0.414
	0.40	3.77	6.89	2.41	26.0	0.331
	0.30	5.03	4.77	1.81	24.0	0.248
	0.20	7.55	2.91	1.21	22.0	0.166
	0.15	10.1	2.09	0.904	21.0	0.124
	0.10	15.1	1.32	0.603	20.0	0.0828
	0.090	16.8	1.18	0.543	19.8	0.0745
	0.080	18.9	1.039	0.482	19.6	0.0662
	0.070	21.6	0.900	0.422	19.4	0.0580
	0.060	25.2	0.763	0.362	19.2	0.0497
	0.050	30.2	0.629	0.301	19.0	0.0414
0.8	0.50	3.40	7.65	2.68	26.0	0.368
	0.40	4.25	5.65	2.14	24.0	0.294
	0.30	5.66	3.89	1.61	22.0	0.221
	0.20	8.49	2.36	1.07	20.0	0.147
	0.15	11.3	1.68	0.804	19.0	0.110
	0.10	17.0	1.060	0.536	18.0	0.0736
	0.090	18.9	0.943	0.482	17.8	0.0662
	0.080	21.2	0.829	0.429	17.6	0.0589
	0.070	24.3	0.717	0.375	17.4	0.0515
	0.060	28.3	0.608	0.321	17.2	0.0442
	0.050	34.0	0.500	0.268	17.0	0.0368
0.7	0.40	4.85	4.53	1.88	22.0	0.258
	0.30	6.47	3.09	1.41	20.0	0.193
	0.20	9.7	1.85	0.938	18.0	0.129
	0.15	12.9	1.31	0.703	17.0	0.097
	0.10	19.4	0.824	0.469	16.0	0.0644
	0.090	21.6	0.733	0.422	15.8	0.0580

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm^2/Ω[1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
0.7	0.080	24.3	0.643	0.375	15.6	0.0515
	0.070	27.7	0.555	0.328	15.4	0.0451
	0.060	32.3	0.470	0.281	15.2	0.0386
	0.050	38.8	0.386	0.234	15.0	0.0322
0.6	0.40	5.66	3.53	1.61	20.0	0.221
	0.30	7.55	2.38	1.21	18.0	0.166
	0.20	11.3	1.41	0.804	16.0	0.110
	0.15	15.1	0.994	0.603	15.0	0.0828
	0.10	22.6	0.618	0.402	14.0	0.0552
	0.090	25.2	0.548	0.362	13.8	0.0497
	0.080	28.3	0.480	0.321	13.6	0.0442
	0.070	32.3	0.414	0.281	13.4	0.0386
	0.060	37.7	0.350	0.241	13.2	0.0331
	0.050	45.3	0.287	0.201	13.0	0.0276
	0.040	56.6	0.226	0.161	12.8	0.0221
0.5	0.30	9.06	1.77	1.00	16.0	0.138
	0.20	13.6	1.030	0.670	14.0	0.0920
	0.15	18.1	0.718	0.502	13.0	0.0690
	0.10	27.2	0.442	0.335	12.0	0.0460
	0.090	30.2	0.391	0.301	11.8	0.0414
	0.080	34.0	0.342	0.268	11.6	0.0368
	0.070	38.8	0.294	0.234	11.4	0.0322
	0.060	45.3	0.247	0.201	11.2	0.0276
	0.050	54.3	0.202	0.167	11.0	0.0230
	0.040	67.9	0.159	0.134	10.8	0.0184
0.4	0.30	11.3	1.24	0.804	14.0	0.110
	0.20	17.0	0.707	0.536	12.0	0.0736
	0.15	22.6	0.486	0.402	11.0	0.0552
	0.10	34.0	0.294	0.268	10.0	0.0368
	0.090	37.7	0.260	0.241	9.80	0.0331
	0.080	42.5	0.226	0.214	9.60	0.0294
	0.070	48.5	0.194	0.188	9.40	0.0258
	0.060	56.6	0.163	0.161	9.20	0.0221
	0.050	73.4	0.123	0.134	9.00	0.0184
0.3	0.20	22.6	0.442	0.402	10.0	0.0552
	0.15	30.2	0.298	0.301	9.00	0.0414
	0.10	45.3	0.177	0.201	8.00	0.0276
	0.090	50.3	0.155	0.181	7.80	0.0248
	0.080	56.6	0.134	0.161	7.60	0.0221
	0.070	64.7	0.114	0.141	7.40	0.0193
	0.060	75.5	0.0954	0.121	7.20	0.0166
	0.050	90.6	0.0773	0.100	7.00	0.0138

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

NIKROTHAL 80, 70
Wire

Standard stock items	Alloy	Diameter range mm	Resistivity $\Omega mm^2 m^{-1}$	Density gcm^{-3}
■	NIKROTHAL 80	8.0-0.020	1.09	8.30
–	NIKROTHAL 70	10.0-0.50	1.18	8.10

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200
N 80 C_t	1.00	1.01	1.02	1.03	1.04	1.05	1.04	1.04	1.04	1.04	1.05	1.06	1.07
N 70 C_t	1.00	1.01	1.02	1.03	1.04	1.05	1.05	1.04	1.04	1.04	1.05	1.06	1.06

To get NIKROTHAL 70, multiply the figures in the table with:

Resistance at 20 °C Ω/m	cm^2/Ω at 20 °C	Weight g/m
1.083	0.924	0.976

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
10	0.0139	22637	652	314	78.5
9.5	0.0154	19408	588	298	70.9
9.0	0.0171	16502	528	283	63.6
8.25	0.0204	12711	444	259	53.5
8.0	0.0217	11590	417	251	50.3
7.5	0.0247	9550	367	236	44.2
7.0	0.0283	7764	319	220	38.5
6.5	0.0328	6217	275	204	33.2
6.0	0.0386	4890	235	188	28.3
5.83	0.0408	4486	222	183	26.7
5.5	0.0459	3766	197	173	23.8
5.0	0.0555	2830	163	157	19.6
4.75	0.0615	2426	147	149	17.7
4.5	0.0685	2063	132	141	15.9
4.25	0.0768	1738	118	134	14.2
4.0	0.0867	1449	104	126	12.6
3.75	0.0987	1194	91.7	118	11.0
3.65	0.104	1101	86.8	115	10.5
3.5	0.113	971	79.9	110	9.62
3.25	0.131	777	68.9	102	8.30
3.0	0.154	611	58.7	94.2	7.07
2.8	0.177	497	51.1	88.0	6.16
2.6	0.205	398	44.1	81.7	5.31
2.5	0.222	354	40.7	78.5	4.91
2.3	0.262	275	34.5	72.3	4.15
2.0	0.347	181	26.1	62.8	3.14
1.8	0.428	132	21.1	56.5	2.54
1.6	0.542	92.7	16.7	50.3	2.01
1.5	0.617	76.4	14.7	47.1	1.77
1.4	0.708	62.1	12.8	44.0	1.54

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
1.3	0.821	49.7	11.0	40.8	1.33
1.2	0.964	39.1	9.39	37.7	1.13
1.0	1.39	22.6	6.52	31.4	0.785
0.95	1.54	19.4	5.88	29.8	0.709
0.90	1.71	16.5	5.28	28.3	0.636
0.85	1.92	13.9	4.71	26.7	0.567
0.80	2.17	11.6	4.17	25.1	0.503
0.75	2.47	9.55	3.67	23.6	0.442
0.70	2.83	7.76	3.19	22.0	0.385
0.65	3.28	6.22	2.75	20.4	0.332
0.60	3.86	4.89	2.35	18.8	0.283
0.55	4.59	3.77	1.97	17.3	0.238
0.50	5.55	2.83	1.63	15.7	0.196
0.45	6.85	2.06	1.32	14.1	0.159
0.40	8.67	1.45	1.04	12.6	0.126
0.35	11.3	0.971	0.799	11.0	0.0962
0.32	13.6	0.742	0.668	10.1	0.0804
0.30	15.4	0.611	0.587	9.42	0.0707
0.28	17.7	0.497	0.511	8.80	0.0616
0.25	22.2	0.354	0.407	7.85	0.0491
0.22	28.7	0.241	0.316	6.91	0.0380
0.20	34.7	0.181	0.261	6.28	0.0314
0.19	38.4	0.155	0.235	5.97	0.0284
0.18	42.8	0.132	0.211	5.65	0.0254
0.17	48.0	0.111	0.188	5.34	0.0227
0.16	54.2	0.0927	0.167	5.03	0.0201
0.15	61.7	0.0764	0.147	4.71	0.0177
0.14	70.8	0.0621	0.128	4.40	0.0154
0.13	82.1	0.0497	0.110	4.08	0.0133

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

NIKROTHAL 60
Wire

Alloy	Diameter range mm	Resistivity Ωmm^2m^{-1}	Density gcm^{-3}
NIKROTHAL 60	6.0-0.015	1.11	8.20

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200
C_t	1.00	1.02	1.04	1.05	1.06	1.08	1.09	1.09	1.10	1.10	1.11	1.12	1.13

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω[1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
6.0	0.0393	4801	232	188	28.3
5.5	0.0467	3698	195	173	23.8
5.0	0.0565	2779	161	157	19.6
4.75	0.0626	2382	145	149	17.7
4.5	0.0698	2026	130	141	15.9
4.25	0.0782	1706	116	134	14.2
4.0	0.0883	1423	103	126	12.6
3.75	0.101	1172	90.6	118	11.0
3.5	0.115	953	78.9	110	9.62
3.25	0.134	763	68.0	102	8.30
3.0	0.157	600	58.0	94.2	7.07
2.8	0.180	488	50.5	88.0	6.16
2.6	0.209	391	43.5	81.7	5.31
2.5	0.226	347	40.3	78.5	4.91
2.2	0.292	237	31.2	69.1	3.80
2.0	0.353	178	25.8	62.8	3.14
1.9	0.391	152	23.2	59.7	2.84
1.8	0.436	130	20.9	56.5	2.54
1.7	0.489	109	18.6	53.4	2.27
1.6	0.552	91.0	16.5	50.3	2.01
1.5	0.628	75.0	14.5	47.1	1.77
1.4	0.721	61.0	12.6	44.0	1.54
1.3	0.836	48.8	10.9	40.8	1.33
1.2	0.981	38.4	9.27	37.7	1.13
1.1	1.17	29.6	7.79	34.6	0.950
1.0	1.41	22.2	6.44	31.4	0.785
0.95	1.57	19.1	5.81	29.8	0.709
0.90	1.74	16.2	5.22	28.3	0.636
0.85	1.96	13.7	4.65	26.7	0.567
0.80	2.21	11.4	4.12	25.1	0.503
0.75	2.51	9.38	3.62	23.6	0.442
0.70	2.88	7.62	3.16	22.0	0.385
0.65	3.35	6.10	2.72	20.4	0.332
0.60	3.93	4.80	2.32	18.8	0.283
0.55	4.67	3.70	1.95	17.3	0.238
0.50	5.65	2.78	1.61	15.7	0.196
0.475	6.26	2.38	1.45	14.9	0.177
0.45	6.98	2.03	1.30	14.1	0.159
0.425	7.82	1.71	1.16	13.4	0.142
0.40	8.83	1.42	1.03	12.6	0.126
0.375	10.1	1.17	0.906	11.8	
0.35	11.5	0.953	0.789	11.0	
0.32	13.8	0.728	0.659	10.1	
0.30	15.7	0.600	0.580	9.42	
0.28	18.0	0.488	0.505	8.80	
0.26	20.9	0.391	0.435	8.17	
0.25	22.6	0.347	0.403	7.85	
0.24	24.5	0.307	0.371	7.54	
0.23	26.7	0.270	0.341	7.23	
0.22	29.2	0.237	0.312	6.91	
0.21	32.0	0.206	0.284	6.60	
0.20	35.3	0.178	0.258	6.28	
0.19	39.1	0.152	0.232	5.97	
0.18	43.6	0.130	0.209	5.65	
0.17	48.9	0.109	0.186	5.34	
0.16	55.2	0.0910	0.165	5.03	
0.15	62.8	0.0750	0.145	4.71	
0.14	72.1	0.0610	0.126	4.40	
0.13	83.6	0.0488	0.109	4.08	

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

NIKROTHAL 40, 20
Wire

Alloy	Diameter range mm	Resistivity $\Omega mm^2 m^{-1}$	Density gcm^{-3}
NIKROTHAL 40	6.0-0.10	1.04	7.90
NIKROTHAL 20	6.0-0.10	0.95	7.80

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100
N40 C_t	1.00	1.03	1.06	1.10	1.12	1.15	1.17	1.19	1.21	1.22	1.23	1.24
N20 C_t	1.00	1.04	1.10	1.14	1.17	1.21	1.12	1.16	1.28	1.30	1.32	1.34

To get NIKROTHAL 20, multiply the figures in the table with:

Resistance at 20 °C Ω/m	cm^2/Ω at 20 °C	Weight g/m
0.913	1.095	0.987

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω[1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
6.0	0.0368	5125	223	188	28.3
5.5	0.0438	3947	188	173	23.8
5.0	0.0530	2966	155	157	19.6
4.75	0.0587	2543	140	149	17.7
4.5	0.0654	2162	126	141	15.9
4.25	0.0733	1821	112	134	14.2
4.0	0.0828	1518	99.3	126	12.6
3.75	0.094	1251	87.3	118	11.0
3.5	0.108	1017	76.0	110	9.62
3.25	0.125	814	65.5	102	8.30
3.0	0.147	641	55.8	94.2	7.07
2.8	0.169	521	48.6	88.0	6.16
2.6	0.196	417	41.9	81.7	5.31
2.5	0.212	371	38.8	78.5	4.91
2.2	0.274	253	30.0	69.1	3.80
2.0	0.331	190	24.8	62.8	3.14
1.9	0.367	163	22.4	59.7	2.84
1.8	0.409	138	20.1	56.5	2.54
1.7	0.458	117	17.9	53.4	2.27
1.6	0.517	97.2	15.9	50.3	2.01
1.5	0.589	80.1	14.0	47.1	1.77
1.4	0.676	65.1	12.2	44.0	1.54
1.3	0.784	52.1	10.5	40.8	1.33
1.2	0.920	41.0	8.93	37.7	1.13
1.1	1.09	31.6	7.51	34.6	0.950
1.0	1.32	23.7	6.20	31.4	0.785
0.95	1.47	20.3	5.60	29.8	0.709
0.90	1.63	17.3	5.03	28.3	0.636
0.85	1.83	14.6	4.48	26.7	0.567
0.80	2.07	12.1	3.97	25.1	0.503

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω[1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
0.75	2.35	10.01	3.49	23.6	0.442
0.70	2.70	8.14	3.04	22.0	0.385
0.65	3.13	6.52	2.62	20.4	0.332
0.60	3.68	5.12	2.23	18.8	0.283
0.55	4.38	3.95	1.88	17.3	0.238
0.50	5.30	2.97	1.55	15.7	0.196
0.475	5.87	2.54	1.40	14.9	0.177
0.45	6.54	2.16	1.26	14.1	0.159
0.425	7.33	1.82	1.12	13.4	0.142
0.40	8.28	1.52	0.993	12.6	0.126
0.375	9.4	1.25	0.873	11.8	0.110
0.35	10.8	1.017	0.760	11.0	0.0962
0.32	12.9	0.777	0.635	10.1	0.0804
0.30	14.7	0.641	0.558	9.42	0.0707
0.28	16.9	0.521	0.486	8.80	0.0616
0.26	19.6	0.417	0.419	8.17	0.0531
0.25	21.2	0.371	0.388	7.85	0.0491
0.24	23.0	0.328	0.357	7.54	0.0452
0.23	25.0	0.289	0.328	7.23	0.0415
0.22	27.4	0.253	0.300	6.91	0.0380
0.21	30.0	0.220	0.274	6.60	0.0346
0.20	33.1	0.190	0.248	6.28	0.0314
0.19	36.7	0.163	0.224	5.97	0.0284
0.18	40.9	0.138	0.201	5.65	0.0254
0.17	45.8	0.117	0.179	5.34	0.0227
0.16	51.7	0.0972	0.159	5.03	0.0201
0.15	58.9	0.0801	0.140	4.71	0.0177
0.14	67.6	0.0651	0.122	4.40	0.0154
0.13	78.4	0.0521	0.105	4.08	0.0133

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

NIKROTHAL 80, 60, 40
Ribbon

Alloy	Resistivity Ωmm²m⁻¹	Density gcm⁻³
NIKROTHAL 80	1.09	8.30
NIKROTHAL 60	1.11	8.20
NIKROTHAL 40	1.04	7.90

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	200	300	400	500	600	700	800	900	1000	1100	1200
N80 C_t	1.00	1.01	1.02	1.03	1.04	1.05	1.04	1.04	1.04	1.04	1.05	1.06	1.07
N60 C_t	1.00	1.02	1.04	1.05	1.06	1.08	1.09	1.09	1.10	1.10	1.11	1.12	1.13
N40 C_t	1.00	1.03	1.06	1.10	1.12	1.15	1.17	1.19	1.21	1.22	1.23	1.24	

To get N60 or N40, multiply the figures in the table with:

	Resistance at 20 °C Ω/m	cm²/Ω at 20 °C	Weight g/m
N60	1.018	0.982	0.988
N40	0.954	1.048	0.952

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1)] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
4	1.0	0.296	338	30.5	100	3.68
	0.90	0.329	298	27.5	98.0	3.31
	0.80	0.370	259	24.4	96.0	2.94
	0.70	0.423	222	21.4	94.0	2.58
	0.60	0.494	186	18.3	92.0	2.21
	0.50	0.592	152	15.3	90.0	1.84
	0.40	0.740	119	12.2	88.0	1.47
	0.30	0.987	87.1	9.16	86.0	1.10
	0.20	1.48	56.7	6.11	84.0	0.736
	0.15	1.97	42.0	4.58	83.0	0.552
	0.10	2.96	27.7	3.05	82.0	0.368
3	1.0	0.395	203	22.9	80.0	2.76
	0.90	0.439	178	20.6	78.0	2.48
	0.80	0.494	154	18.3	76.0	2.21
	0.70	0.564	131	16.0	74.0	1.93
	0.60	0.658	109	13.7	72.0	1.66
	0.50	0.790	88.6	11.5	70.0	1.38
	0.40	0.987	68.9	9.16	68.0	1.10
	0.30	1.32	50.1	6.87	66.0	0.828
	0.20	1.97	32.4	4.58	64.0	0.552
	0.15	2.63	23.9	3.44	63.0	0.414
	0.10	3.95	15.7	2.29	62.0	0.276
2.5	1.0	0.474	148	19.1	70.0	2.30
	0.90	0.527	129	17.2	68.0	2.07
	0.80	0.592	111	15.3	66.0	1.84
	0.70	0.677	94.5	13.4	64.0	1.61
	0.60	0.790	78.5	11.5	62.0	1.38
	0.50	0.948	63.3	9.55	60.0	1.15
	0.40	1.18	49.0	7.64	58.0	0.920
	0.30	1.58	35.4	5.73	56.0	0.690
	0.20	2.37	22.8	3.82	54.0	0.460
	0.15	3.16	16.8	2.86	53.0	0.345
	0.10	4.74	11.0	1.91	52.0	0.230
2.0	1.0	0.592	101	15.3	60.0	1.84
	0.90	0.658	88.1	13.7	58.0	1.66
	0.80	0.740	75.6	12.2	56.0	1.47

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1)] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
2.0	0.70	0.846	63.8	10.7	54.0	1.29
	0.60	0.987	52.7	9.16	52.0	1.10
	0.50	1.18	42.2	7.64	50.0	0.920
	0.40	1.48	32.4	6.11	48.0	0.736
	0.30	1.97	23.3	4.58	46.0	0.552
	0.20	2.96	14.9	3.05	44.0	0.368
	0.15	3.95	10.9	2.29	43.0	0.276
	0.10	5.92	7.09	1.53	42.0	0.184
1.8	1.0	0.658	85.1	13.7	56.0	1.66
	0.90	0.731	73.8	12.4	54.0	1.49
	0.80	0.823	63.2	11.0	52.0	1.32
	0.70	0.940	53.2	9.62	50.0	1.16
	0.60	1.10	43.8	8.25	48.0	0.994
	0.50	1.32	34.9	6.87	46.0	0.828
	0.40	1.65	26.7	5.50	44.0	0.662
	0.30	2.19	19.1	4.12	42.0	0.497
	0.20	3.29	12.2	2.75	40.0	0.331
	0.15	4.39	8.89	2.06	39.0	0.248
	0.10	6.58	5.77	1.37	38.0	0.166
1.5	1.0	0.790	63.3	11.5	50.0	1.38
	0.90	0.878	54.7	10.3	48.0	1.24
	0.80	0.987	46.6	9.16	46.0	1.10
	0.70	1.13	39.0	8.02	44.0	0.966
	0.60	1.32	31.9	6.87	42.0	0.828
	0.50	1.58	25.3	5.73	40.0	0.690
	0.40	1.97	19.2	4.58	38.0	0.552
	0.30	2.63	13.7	3.44	36.0	0.414
	0.20	3.95	8.61	2.29	34.0	0.276
	0.15	5.27	6.27	1.72	33.0	0.207
	0.10	7.90	4.05	1.15	32.0	0.138
	0.090	8.78	3.62	1.03	31.8	0.124
	0.080	9.87	3.20	0.916	31.6	0.110
1.2	0.80	1.23	32.4	7.33	40.0	0.883
	0.70	1.41	26.9	6.41	38.0	0.773
	0.60	1.65	21.9	5.50	36.0	0.662
	0.50	1.97	17.2	4.58	34.0	0.552

[1)] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

(cont.)

(cont.)

NIKROTHAL 80, 60, 40
Ribbon

Alloy	Resistivity Ωmm²m⁻¹	Density gcm⁻³
NIKROTHAL 80	1.09	8.30
NIKROTHAL 60	1.11	8.20
NIKROTHAL 40	1.04	7.90

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
	0.40	2.47	13.0	3.67	32.0	0.442
	0.30	3.29	9.12	2.75	30.0	0.331
	0.20	4.94	5.67	1.83	28.0	0.221
	0.15	6.58	4.10	1.37	27.0	0.166
	0.10	9.87	2.63	0.916	26.0	0.110
	0.090	11.0	2.35	0.825	25.8	0.099
	0.080	12.3	2.07	0.733	25.6	0.088
	0.070	14.1	1.80	0.641	25.4	0.077
1.0	0.80	1.48	24.3	6.11	36.0	0.736
	0.70	1.69	20.1	5.35	34.0	0.644
	0.60	1.97	16.2	4.58	32.0	0.552
	0.50	2.37	12.7	3.82	30.0	0.460
	0.40	2.96	9.45	3.05	28.0	0.368
	0.30	3.95	6.58	2.29	26.0	0.276
	0.20	5.92	4.05	1.53	24.0	0.184
	0.15	7.90	2.91	1.15	23.0	0.138
	0.10	11.8	1.86	0.764	22.0	0.0920
	0.090	13.2	1.66	0.687	21.8	0.0828
	0.080	14.8	1.46	0.611	21.6	0.0736
	0.070	16.9	1.26	0.535	21.4	0.0644
	0.060	19.7	1.07	0.458	21.2	0.0552
	0.050	23.7	0.886	0.382	21.0	0.0460
0.9	0.70	1.88	17.0	4.81	32.0	0.580
	0.60	2.19	13.7	4.12	30.0	0.497
	0.50	2.63	10.6	3.44	28.0	0.414
	0.40	3.29	7.90	2.75	26.0	0.331
	0.30	4.39	5.47	2.06	24.0	0.248
	0.20	6.58	3.34	1.37	22.0	0.166
	0.15	8.78	2.39	1.03	21.0	0.124
	0.10	13.2	1.52	0.687	20.0	0.0828
	0.090	14.6	1.35	0.619	19.8	0.0745
	0.080	16.5	1.19	0.550	19.6	0.0662
	0.070	18.8	1.03	0.481	19.4	0.0580
	0.060	21.9	0.875	0.412	19.2	0.0497
	0.050	26.3	0.722	0.344	19.0	0.0414
0.8	0.70	2.12	14.2	4.28	30.0	0.515
	0.60	2.47	11.3	3.67	28.0	0.442
	0.50	2.96	8.78	3.05	26.0	0.368
	0.40	3.70	6.48	2.44	24.0	0.294
	0.30	4.94	4.46	1.83	22.0	0.221
	0.20	7.40	2.70	1.22	20.0	0.147
	0.15	9.87	1.92	0.916	19.0	0.110
	0.10	14.8	1.22	0.611	18.0	0.0736
	0.090	16.5	1.08	0.550	17.8	0.0662
	0.080	18.5	0.951	0.489	17.6	0.0589
	0.070	21.2	0.822	0.428	17.4	0.0515
	0.060	24.7	0.697	0.367	17.2	0.0442
	0.050	29.6	0.574	0.305	17.0	0.0368
0.7	0.60	2.82	9.22	3.21	26.0	0.386
	0.50	3.39	7.09	2.67	24.0	0.322

Width mm	Thickness mm	Resistance at 20 °C Ω/m	cm²/Ω[1] at 20 °C	Weight g/m	Surface area cm²/m	Cross sectional area mm²
0.7	0.40	4.23	5.20	2.14	22.0	0.258
	0.30	5.64	3.54	1.60	20.0	0.193
	0.20	8.46	2.13	1.07	18.0	0.129
	0.15	11.3	1.51	0.802	17.0	0.097
	0.10	16.9	0.945	0.535	16.0	0.0644
	0.090	18.8	0.840	0.481	15.8	0.0580
	0.080	21.2	0.737	0.428	15.6	0.0515
	0.070	24.2	0.637	0.374	15.4	0.0451
	0.060	28.2	0.539	0.321	15.2	0.0386
	0.050	33.9	0.443	0.267	15.0	0.0322
0.6	0.50	3.95	5.57	2.29	22.0	0.276
	0.40	4.94	4.05	1.83	20.0	0.221
	0.30	6.58	2.73	1.37	18.0	0.166
	0.20	9.87	1.62	0.916	16.0	0.110
	0.15	13.2	1.14	0.687	15.0	0.0828
	0.10	19.7	0.709	0.458	14.0	0.0552
	0.090	21.9	0.629	0.412	13.8	0.0497
	0.080	24.7	0.551	0.367	13.6	0.0442
	0.070	28.2	0.475	0.321	13.4	0.0386
	0.060	32.9	0.401	0.275	13.2	0.0331
	0.050	39.5	0.329	0.229	13.0	0.0276
	0.040	49.4	0.259	0.183	12.8	0.0221
0.5	0.30	7.90	2.03	1.15	16.0	0.138
	0.20	11.8	1.18	0.764	14.0	0.0920
	0.15	15.8	0.823	0.573	13.0	0.0690
	0.10	23.7	0.506	0.382	12.0	0.0460
	0.090	26.3	0.448	0.344	11.8	0.0414
	0.080	29.6	0.392	0.305	11.6	0.0368
	0.070	33.9	0.337	0.267	11.4	0.0322
	0.060	39.5	0.284	0.229	11.2	0.0276
	0.050	47.4	0.232	0.191	11.0	0.0230
	0.040	59.2	0.182	0.153	10.8	0.0184
0.4	0.30	9.87	1.42	0.916	14.0	0.110
	0.20	14.8	0.810	0.611	12.0	0.0736
	0.15	19.7	0.557	0.458	11.0	0.0552
	0.10	29.6	0.338	0.305	10.0	0.0368
	0.090	32.9	0.298	0.275	9.80	0.0331
	0.080	37.0	0.259	0.244	9.60	0.0294
	0.070	42.3	0.222	0.214	9.40	0.0258
	0.060	49.4	0.186	0.183	9.20	0.0221
	0.050	59.2	0.152	0.153	9.00	0.0184
0.3	0.20	19.7	0.506	0.458	10.0	0.0552
	0.15	26.3	0.342	0.344	9.00	0.0414
	0.10	39.5	0.203	0.229	8.00	0.0276
	0.090	43.9	0.178	0.206	7.80	0.0248
	0.080	49.4	0.154	0.183	7.60	0.0221
	0.070	56.4	0.131	0.160	7.40	0.0193
	0.060	65.8	0.109	0.137	7.20	0.0166
	0.050	79.0	0.0886	0.115	7.00	0.0138

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)

NIFETHAL 70 and 52 Wire

Alloy	Diameter range mm	Resistivity $\Omega mm^2 m^{-1}$	Density gcm^{-3}
NIFETHAL 70	4.0-0.10	0.20	8.45
NIFETHAL 52	4.0-0.10	0.43	8.20

To obtain resistance at working temperature, multiply by the factor C_t in the following table:

°C	20	100	150	200	250	300	350	400	450	500
NIFETHAL 70 C_t	1.00	1.42	1.68	1.91	2.19	2.47	2.75	3.03	3.34	3.66
NIFETHAL 52 C_t	1.00	1.33	1.53	1.73	1.93	2.13	2.32	2.49	2.64	2.77

NIFETHAL 70

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
1.8	0.0786	719	21.5	56.5	2.54
1.7	0.0881	606	19.2	53.4	2.27
1.6	0.0995	505	17.0	50.3	2.01
1.5	0.113	416	14.9	47.1	1.77
1.4	0.130	339	13.0	44.0	1.54
1.3	0.151	271	11.2	40.8	1.33
1.2	0.177	213	9.56	37.7	1.13
1.1	0.210	164	8.03	34.6	0.950
1.0	0.255	123	6.64	31.4	0.785
0.95	0.282	106	5.99	29.8	0.709
0.90	0.314	89.9	5.38	28.3	0.636
0.85	0.352	75.8	4.79	26.7	0.567
0.80	0.398	63.2	4.25	25.1	0.503
0.75	0.453	52.0	3.73	23.6	0.442
0.70	0.520	42.3	3.25	22.0	0.385
0.65	0.603	33.9	2.80	20.4	0.332
0.60	0.707	26.6	2.39	18.8	0.283
0.55	0.842	20.5	2.01	17.3	0.238
0.50	1.02	15.4	1.66	15.7	0.196
0.475	1.13	13.2	1.50	14.9	0.177
0.45	1.26	11.2	1.34	14.1	0.159
0.425	1.41	9.47	1.20	13.4	0.142
0.40	1.59	7.90	1.06	12.6	0.126
0.375	1.81	6.51	0.933	11.8	0.110
0.35	2.08	5.29	0.813	11.0	0.0962
0.32	2.49	4.04	0.680	10.1	0.0804
0.30	2.83	3.33	0.597	9.42	0.0707
0.28	3.25	2.71	0.520	8.80	0.0616
0.26	3.77	2.17	0.449	8.17	0.0531
0.25	4.07	1.93	0.415	7.85	0.0491
0.24	4.42	1.71	0.382	7.54	0.0452
0.23	4.81	1.50	0.351	7.23	0.0415
0.22	5.26	1.31	0.321	6.91	0.0380
0.21	5.77	1.14	0.293	6.60	0.0346
0.20	6.37	0.987	0.265	6.28	0.0314
0.19	7.05	0.846	0.240	5.97	0.0284
0.18	7.86	0.719	0.215	5.65	0.0254
0.17	8.81	0.606	0.192	5.34	0.0227
0.16	9.95	0.505	0.170	5.03	0.0201
0.15	11.3	0.416	0.149	4.71	0.0177
0.14	13.0	0.339	0.130	4.40	0.0154
0.13	15.1	0.271	0.112	4.08	0.0133
0.12	17.7	0.213	0.0956	3.77	0.0113
0.11	21.0	0.164	0.0803	3.46	0.00950
0.10	25.5	0.123	0.0664	3.14	0.00785

NIFETHAL 52

Diameter mm	Resistance at 20 °C Ω/m	cm^2/Ω [1] at 20 °C	Weight g/m	Surface area cm^2/m	Cross sectional area mm^2
1.8	0.169	335	20.9	56.5	2.54
1.7	0.189	282	18.6	53.4	2.27
1.6	0.214	235	16.5	50.3	2.01
1.5	0.243	194	14.5	47.1	1.77
1.4	0.279	157	12.6	44.0	1.54
1.3	0.324	126	10.9	40.8	1.33
1.2	0.380	99.2	9.27	37.7	1.13
1.1	0.452	76.4	7.79	34.6	0.950
1.0	0.547	57.4	6.44	31.4	0.785
0.95	0.607	49.2	5.81	29.8	0.709
0.90	0.676	41.8	5.22	28.3	0.636
0.85	0.758	35.2	4.65	26.7	0.567
0.80	0.855	29.4	4.12	25.1	0.503
0.75	0.973	24.2	3.62	23.6	0.442
0.70	1.12	19.7	3.16	22.0	0.385
0.65	1.30	15.8	2.72	20.4	0.332
0.60	1.52	12.4	2.32	18.8	0.283
0.55	1.81	9.55	1.95	17.3	0.238
0.50	2.19	7.17	1.61	15.7	0.196
0.475	2.43	6.15	1.45	14.9	0.177
0.45	2.70	5.23	1.30	14.1	0.159
0.425	3.03	4.40	1.16	13.4	0.142
0.40	3.42	3.67	1.030	12.6	0.126
0.375	3.89	3.03	0.906	11.8	0.110
0.35	4.47	2.46	0.789	11.0	0.0962
0.32	5.35	1.88	0.659	10.1	0.0804
0.30	6.08	1.55	0.580	9.42	0.0707
0.28	6.98	1.26	0.505	8.80	0.0616
0.26	8.10	1.01	0.435	8.17	0.0531
0.25	8.76	0.897	0.403	7.85	0.0491
0.24	9.51	0.793	0.371	7.54	0.0452
0.23	10.3	0.698	0.341	7.23	0.0415
0.22	11.3	0.611	0.312	6.91	0.0380
0.21	12.4	0.531	0.284	6.60	0.0346
0.20	13.7	0.459	0.258	6.28	0.0314
0.19	15.2	0.394	0.232	5.97	0.0284
0.18	16.9	0.335	0.209	5.65	0.0254
0.17	18.9	0.282	0.186	5.34	0.0227
0.16	21.4	0.235	0.165	5.03	0.0201
0.15	24.3	0.194	0.145	4.71	0.0177
0.14	27.9	0.157	0.126	4.40	0.0154
0.13	32.4	0.126	0.1088	4.08	0.0133
0.12	38.0	0.0992	0.0927	3.77	0.0113
0.11	45.2	0.0764	0.0779	3.46	0.00950
0.10	54.7	0.0574	0.0644	3.14	0.00785

[1] $cm^2/\Omega = I^2 \cdot C_t/p$ (I = Current, C_t = temperature factor, p = surface load W/cm^2)