

# 鉄・クロム一種

## 丸線の導体抵抗および重量

体積抵抗率 =  $142 \pm 7 \mu\Omega \cdot \text{cm}$       密度 =  $7.20 \text{ g/cm}^3$  (20°C)

### 温度による電気抵抗の標準変化率

温度 (°C)	20	100	200	300	400	500	600	700	800	900	1.000	1.100	1.200
係 数	1.000	1.007	1.017	1.029	1.044	1.065	1.084	1.092	1.098	1.101	1.103	1.105	1.106

線 径 mm	線 径 許 容 差 mm	断 面 積 mm <sup>2</sup>	長 さ m/kg	重 量 g/m	導 体 抵 抗 許 容 差 %	導 体 抵 抗 Ω/m		
						最 大	標 準	最 小
12.0	± 0.12	113.1	1.229	814	± 5.0	0.01318	0.01256	0.01193
11.0	± 0.11	95.03	1.462	684	"	0.01568	0.01494	0.01419
10.0	"	78.54	1.770	565	"	0.01898	0.01808	0.01717
9.0	± 0.10	63.62	2.18	458	"	0.0234	0.0223	0.0211
8.0	± 0.09	50.27	2.76	362	"	0.0297	0.0283	0.0268
7.0	± 0.08	38.48	3.61	277	"	0.0387	0.0369	0.0350
6.5	"	33.18	4.18	239	"	0.0449	0.0428	0.0406
6.0	"	28.27	4.90	204	"	0.0527	0.0502	0.0476
5.5	"	23.76	5.84	171.1	"	0.0626	0.0597	0.0567
5.0	± 0.07	19.64	7.07	141.4	"	0.0759	0.0723	0.0686
4.5	" 06	15.90	8.73	114.5	"	0.0937	0.0893	0.0848
4.0	± 0.06	12.57	11.05	90.5	"	0.1186	0.1130	0.1073
3.5	" 05	9.621	14.43	69.3	"	0.1549	0.1476	0.1402
3.2	± 0.05	8.042	17.27	57.9	"	0.1854	0.1766	0.1677
2.9	"	6.605	21.0	47.6	"	0.225	0.215	0.204
2.6	"	5.309	26.2	38.2	"	0.281	0.268	0.254
2.3	" 04	4.155	33.4	29.9	"	0.359	0.342	0.324
2.0	± 0.04	3.142	44.2	22.6	"	0.474	0.452	0.429
1.8	" 03	2.545	54.6	18.32	"	0.585	0.558	0.530
1.6	± 0.035	2.011	69.1	14.48	"	0.741	0.706	0.670
1.5	"	1.767	78.1	12.72	"	0.843	0.803	0.762
1.4	"	1.539	90.3	11.08	± 6.0	0.978	0.923	0.867
1.3	± 0.03	1.327	104.7	9.55	"	1.131	1.067	1.002
1.2	"	1.131	122.9	8.14	"	1.331	1.256	1.180
1.1	"	0.9503	146.2	6.84	"	1.583	1.494	1.404
1.0	± 0.025	0.7854	177.0	5.65	"	1.916	1.808	1.699
0.9	"	0.6362	218.	4.58	"	2.36	2.23	2.09
0.85	"	0.5675	244.	4.09	"	2.66	2.51	2.35
0.80	"	0.5027	276.	3.62	"	2.99	2.83	2.66
0.75	"	0.4418	314.	3.18	"	3.41	3.22	3.02
0.70	± 0.02	0.3848	m/g	g/km	"	3.91	3.69	3.46
0.65	"	0.3318	0.361	2770	± 7.0	4.57	4.28	3.98
0.60	"	0.2827	0.418	2390	"	5.37	5.02	4.66
0.55	"	0.2376	0.490	2040	"	6.38	5.97	5.55
0.50	± 0.015	0.1964	0.584	1711	"	7.73	7.23	6.72
0.45	"	0.1590	0.707	1414	"	9.53	8.93	8.30
0.40	"	0.1257	0.873	1145	"	12.09	11.30	10.50
0.35	"	0.09621	1.105	905	± 8.0	15.94	14.76	13.57
0.32	"	0.08042	1.443	693	"	19.07	17.66	16.24
0.29	"	0.06605	1.727	579	"	23.2	21.5	19.78
0.26	± 0.01	0.05309	2.101	476	"	28.9	26.8	24.6
0.23	"	0.04155	2.618	382	"	36.9	34.2	31.4
0.20	"	0.03142	3.344	299	"	48.8	45.2	41.5
0.18	"	0.02545	4.425	226	± 9.0	60.8	55.8	50.7
0.16	± 0.008	0.02011	5.464	183	"	76.9	70.6	64.2
0.15	"	0.01767	6.897	145	"	87.5	80.3	73.0
0.14	"	0.01539	7.874	127	"	100.6	92.3	83.9
0.13	"	0.01327	9.009	117	"	116.3	106.7	97.0
0.12	± 0.006	0.01131	10.47	95.5	"	136.9	125.6	114.2
0.11	"	0.009503	12.29	81.4	± 10.0	164.3	149.4	134.4
0.10	"	0.007854	14.62	68.4	"	198.8	180.8	162.7
0.09	"	0.006362	17.70	56.5	"	245.	223	200
0.08	"	0.005027	21.83	45.8	± 11.0	314.	283	251
0.07	± 0.005	0.003848	27.62	36.2	"	409.	369	328
0.06	± 0.004	0.002827	36.10	27.7	"	557.	502	446
0.05	"	0.001964	49.02	20.4	± 12.0	809	723	636