



HSM Wire International, Inc

Ph: 330-244-8501 Fax: 330-244-8561

www.hsmwire.com

Current / Temperature Table - Ni Cr A (80/20) & Ni Cr C (60/16)

Approx Amperes to heat a Straight Oxidized wire to given temperature

		Degrees F	400	600	800	1000	1200	1400	1600	1800	2000
		Degrees C	205	315	427	538	649	760	871	982	1093
AWG	INCH DIA.										
8	0.128	22.4	32	41	52	65	79	95	111	128	
9	0.114	18.8	26.8	34.5	44	55	67	80	94	108	
10	0.102	16.2	23.3	29.7	37.5	46	56	68	80	92	
11	0.091	13.8	19.2	24.8	31.5	39	48	57	67	78	
12	0.081	11.6	16.1	20.8	26.5	33.5	40.8	48	56	65	
13	0.072	9.8	13.6	17.6	22.5	28.2	34.2	41	48	55	
14	0.064	8.4	11.6	15	18.8	23.5	29	34.6	40.5	46	
15	0.057	7.2	10	12.8	16.1	20	24.5	29.4	34.3	39.2	
16	0.051	6.4	8.7	10.9	13.7	17	20.9	25.1	29.4	33.6	
17	0.045	5.5	7.5	9.5	11.7	14.5	17.6	21.1	24.6	28.1	
18	0.04	4.8	6.5	8.2	10.1	12.2	14.8	17.7	20.7	23.7	
19	0.036	4.3	5.8	7.2	8.7	10.6	12.7	15.2	17.8	20.5	
20	0.032	3.8	5.1	6.3	7.6	9.1	11	13	15.2	17.5	
21	0.0285	3.3	4.3	5.3	6.5	7.8	9.4	11	12.9	14.8	
22	0.0253	2.9	3.7	4.5	5.6	6.8	8.2	9.6	11	12.5	
23	0.0226	2.58	3.3	4	4.9	5.9	7	8.3	9.6	11	
24	0.0201	2.21	2.9	3.4	4.2	5.1	6	7.1	8.2	9.4	
25	0.0179	1.92	2.52	3	3.6	4.3	5.2	6.1	7.1	8	
26	0.0159	1.67	2.14	2.6	3.2	3.8	4.5	5.3	6.1	6.9	
27	0.0142	1.44	1.84	2.25	2.73	3.3	3.9	4.6	5.3	6	
28	0.0126	1.24	1.61	1.95	2.38	2.85	3.4	3.9	4.5	5.1	
29	0.0113	1.08	1.41	1.73	2.10	2.51	2.95	3.4	3.9	4.4	

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		Degrees C	205	315	427	538	649	760	871	982	1093
AWG	INCH DIA.										
30	0.01		0.92	1.19	1.47	1.78	2.14	2.52	2.9	3.3	3.7
31	0.0089		0.77	1.03	1.28	1.54	1.84	2.17	2.52	2.85	3.2
32	0.008		0.68	0.9	1.13	1.36	1.62	1.89	2.18	2.46	2.76
33	0.0071		0.59	0.79	0.97	1.17	1.4	1.62	1.86	2.12	2.35
34	0.0063		0.5	0.68	0.83	1	1.2	1.41	1.6	1.8	1.99
35	0.0056		0.43	0.57	0.72	0.87	1.03	1.21	1.38	1.54	1.71
36	0.005		0.38	0.52	0.63	0.77	0.89	1.04	1.19	1.33	1.48
37	0.0045		0.35	0.46	0.57	0.68	0.78	0.9	1.03	1.16	1.29
38	0.004		0.3	0.41	0.5	0.59	0.68	0.78	0.88	0.98	1.09
39	0.0035		0.27	0.36	0.42	0.49	0.58	0.66	0.75	0.84	0.92
40	0.0031		0.24	0.31	0.36	0.43	0.5	0.57	0.64	0.72	0.79

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(*Note: For Coiled elements divide straight wire amps by 2 for approximation purposes.)