Resistance Heating Wire
Nickel-Chromium Alloy
60% Nickel / 16% Chromium (Balance Iron)

See Page G-39 for Coiled Resistance Wire

Nickel-Chrome 60 is the world's standard of comparison in the electrical trade for metallic resistance wire. It is an alloy of 60% nickel and 16% chromium, and is the accepted material for heating devices operating up to 1000°C (1850°F). This encompasses most portable domestic heating appliances and those heating units of medium temperatures which do not require the unsurpassed quality of NI/CR-80/20, the 80-20 alloy.

In addition to being commonly used in electrical heating, Nickel-Chrome 60 is used extensively in industrial applications for rheostats and resistance units. It makes for compact units capable of withstanding severe overloads and short circuits without damage or circuit impairment.

The excellent corrosion resistance of Nickel-Chrome 60 makes it very useful for purposes other than electrical heating. Acid dipping baskets, cyanide hardening and pickling containers, filter cloth, wire mesh, bolts and nuts are a few representative uses.

- **Used to Make Straight or Helical Coil Resistance Heaters**
- **Quick Heating, Long Life**
- **High Temperature, 1000°C (1850°F)**
- **Corrosion Resistant**
- **Convenient 15 m and 60 m Spools Available**

Specifications

Composition: 60% Ni, 16% Cr, balance Fe
Specific Resistance: 675 ohms per circular mil-foot at 68°F (20°C). See table below for multiplication factors to obtain resistance at other temperatures.
Specific Gravity: 8.25
Density: 8.25 g/cm^3
Melting Point: approx. 1350°C (2450°F)

Nominal Coefficient of Linear Expansion:
0.000017 (20-1000°C)
Tensile Strength (Kg/cm^3) at 20°C:
Hard Drawn: 14,060
Soft Annealed: 6,679
Nominal Temperature Coefficient of Resistance:
0.00015 Ohms/Ohms/°C (20-500°C)

Factor by Which Resistance at Room Temperature Is to Be Multiplied to Obtain Resistance at Indicated Temperatures
(These figures are given as a basis for engineering calculations and represent average material as supplied.)

Temp. °F	68	200	400	600	800	1000	1200	1400	1600°F
Temp. °C	20	93	204	315	427	538	649	760	871°C
Factor	1.000	1.019	1.044	1.070	1.092	1.108	1.112	1.118	1.13

To Order *(Specify Model Number)* ***IN STOCK FOR FAST DELIVERY!***

AWG	Dia. mm (")	Ohms per 30cm @ 20°C (68°F)	Current Temperature Characteristics* °C (°F) 425 (800)	550 (1000)	650 (1200)	750 (1400)	875 (1600)	1100 (2000)	Model No.	Price 15 m	Price 60 m
18	1 (.040)	.4219	7.90	9.75	11.96	14.51	17.37	23.08	NI60-040-(†)	£17.25	£52.00
20	.8 (.032)	.6592	5.92	7.25	8.86	10.69	12.72	16.87	NI60-032-(†)	13.00	39.50
22	.64(.0253)	1.055	4.44	5.40	6.56	7.87	11.63	12.33	NI60-025-(†)	13.00	39.50
24	.5 (.0201)	1.671	3.32	4.01	4.86	5.80	6.82	9.01	NI60-020-(†)	13.00	39.50
26	.4 (.0159)	2.670	2.52	3.00	3.61	4.31	5.06	6.63	NI60-015-(†)	8.20	24.50
28	.3 (.0126)	4.252	1.90	2.28	2.73	3.23	3.77	4.88	NI60-012-(†)	8.20	24.50
30	.25 (.010)	6.750	1.43	1.74	2.06	2.43	2.81	3.59	NI60-010-(†)	8.20	24.50

** Showing approximate amperes necessary to produce a given temperature, applying only to a straight wire stretched horizontally in free air.*
Note: *This wire is* ***not*** *intended for use in making thermocouple elements. †Specify desired length in metres: 15m or 60m*
Ordering Example: NI60-040-60m *is a 60 m spool of 1.0mm diameter bare 60% nickel/16% chromium alloy heating wire,* ***£52.00***