

Resistance Heating Wire

Nickel-Chromium Alloy

60% Nickel/16% Chromium (Balance Iron)

- ✓ Used to Make Straight or Helical Coil Resistance Heaters
- ✓ Quick Heating, Long Life
- ✓ High Temperature, 1000°C (1850°F)
- ✓ Corrosion Resistant
- ✓ Convenient 15 m (50') and 60 m (200') Spools



Shown larger than actual size.

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 pluggable power cord 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.

Specifications

Composition: 60% Ni, 16% Cr, balance Fe

Specific Resistance: 675 Ω 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: 0.298 lb/in³
Melting Point: Approx 1350°C (2450°F)
Nominal Coefficient of Linear Expansion: 0.000017 (20 to 1000°C)
Tensile Strength (lb/in²) at 20°C (68°F):
Soft Annealed: 95,000
Nominal Temperature Coefficient of Resistance: 0.00015 Ω/Ω/°C (20 to 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 °C	20	93	204	315	427	538	649	760	871°C
Temp °F	68	200	400	600	800	1000	1200	1400	1600°F
Factor	1.000	1.019	1.044	1.070	1.092	1.108	1.112	1.118	1.13

MOST POPULAR MODELS HIGHLIGHTED!

To Order (Specify Model Number)

AWG	Dia. mm (in)	Ω per ft @ 20°C (68°F)	Current Temperature Characteristics* °C (°F)						Model No.	Price	
			425 (800)	550 (1000)	650 (1200)	750 (1400)	875 (1600)	1100 (2000)		15 m (50')	60 m (200')
18	1.0 (0.040)	0.4219	7.90	9.75	11.96	14.51	17.37	23.08	NI60-040-(†)	\$21	\$63
20	0.81 (0.032)	0.6592	5.92	7.25	8.86	10.69	12.72	16.87	NI60-032-(†)	16	48
22	0.64 (0.0253)	1.055	4.44	5.40	6.56	7.87	11.63	12.33	NI60-025-(†)	16	48
24	0.51 (0.0201)	1.671	3.32	4.01	4.86	5.80	6.82	9.01	NI60-020-(†)	16	48
26	0.40 (0.0159)	2.670	2.52	3.00	3.61	4.31	5.06	6.63	NI60-015-(†)	10	30
28	0.32 (0.0126)	4.252	1.90	2.28	2.73	3.23	3.77	4.88	NI60-012-(†)	10	30
30	0.25 (0.010)	6.750	1.43	1.74	2.06	2.43	2.81	3.59	NI60-010-(†)	10	30

* Showing approximate amperes necessary to produce a given temperature, applying only to a straight wire stretched horizontally in free air.
 † Specify desired length in feet: 50 or 200. **Note:** This wire is **not** intended for use in making thermocouple elements.
Ordering Example: NI60-010-200 is a 200' spool of 30 gage bare 60% nickel/16% chromium alloy heating wire, \$30.

Note: Published prices are based on market value at time of printing and are subject to change due to Nickel surcharges, Chromium and precious-metal market fluctuations.



UNITED STATES

www.omega.com
1-800-TC-OMEGA
Stamford, CT.

CANADA

www.omega.ca
Laval(Quebec)
1-800-TC-OMEGA

GERMANY

www.omega.de
Deckenpfronn, Germany
0800-8266342

UNITED KINGDOM

www.omega.co.uk
Manchester, England
0800-488-488

FRANCE

www.omega.fr
Guyancourt, France
088-466-342

CZECH REPUBLIC

www.omegaeng.cz
Karviná, Czech Republic
596-311-899

BENELUX

www.omega.nl
Amstelveen, NL
0800-099-33-44



More than 100,000 Products Available!

• Temperature

Calibrators, Connectors, General Test and Measurement Instruments, Glass Bulb Thermometers, Handheld Instruments for Temperature Measurement, Ice Point References, Indicating Labels, Crayons, Cements and Lacquers, Infrared Temperature Measurement Instruments, Recorders Relative Humidity Measurement Instruments, RTD Probes, Elements and Assemblies, Temperature & Process Meters, Timers and Counters, Temperature and Process Controllers and Power Switching Devices, Thermistor Elements, Probes and Assemblies, Thermocouples Thermowells and Head and Well Assemblies, Transmitters, Wire

• Flow and Level

Air Velocity Indicators, Doppler Flowmeters, Level Measurement, Magnetic Flowmeters, Mass Flowmeters, Pitot Tubes, Pumps, Rotameters, Turbine and Paddle Wheel Flowmeters, Ultrasonic Flowmeters, Valves, Variable Area Flowmeters, Vortex Shedding Flowmeters

• pH and Conductivity

Conductivity Instrumentation, Dissolved Oxygen Instrumentation, Environmental Instrumentation, pH Electrodes and Instruments, Water and Soil Analysis Instrumentation

• Data Acquisition

Auto-Dialers and Alarm Monitoring Systems, Communication Products and Converters, Data Acquisition and Analysis Software, Data Loggers Plug-in Cards, Signal Conditioners, USB, RS232, RS485 and Parallel Port Data Acquisition Systems, Wireless Transmitters and Receivers

• Pressure, Strain and Force

Displacement Transducers, Dynamic Measurement Force Sensors, Instrumentation for Pressure and Strain Measurements, Load Cells, Pressure Gauges, Pressure Reference Section, Pressure Switches, Pressure Transducers, Proximity Transducers, Regulators, Strain Gages, Torque Transducers, Valves

• Heaters

Band Heaters, Cartridge Heaters, Circulation Heaters, Comfort Heaters, Controllers, Meters and Switching Devices, Flexible Heaters, General Test and Measurement Instruments, Heater Hook-up Wire, Heating Cable Systems, Immersion Heaters, Process Air and Duct, Heaters, Radiant Heaters, Strip Heaters, Tubular Heaters