

# **Electrical Wire Size Chart**

## Wire at Del City

Del City stocks a single conductor copper wire with PVC (polyvinyl chloride) insulation for added strength and protection. The insulation protects the copper wire in high heat or extreme cold, allowing it to run optimally between temperatures of -40°C to 80°C, or -40°F to 176°F. The smooth surface PVC is ideal for constructing wire harnesses, easy to pull through loom or conduit.

# **Primary Wire**

Primary wire is used for most automotive wiring applications including wiring of sensors, relays, fuse blocks, and lighting. It is highly resistant to grease, oil and acids making it ideal for these general mechanic applications. Designed with a resistant PVC coating, this copper wire can also be used for power and ground wiring.

It is important to use the appropriate size wire for the circuit you are running. The more current being driven in the circuit, the larger the wire you will need. Use the chart below for general use recommendations based on typical circuit load.

Gauge sizes: Range from 8 - 20 gauge

**Colors:** Include red, white, blue, green, black, yellow, and brown. Select gauge sizes also include gray, purple, orange, pink, tan, light blue and light green.

Spool sizes: Range from 100' - 6,000'

Thrifty spools are also available in a variety of gauges and colors. These are short length spools, ranging 10 - 45',

ideal for small jobs or resale.

## Gauge Size

Gauge is determined by the number of copper strands and micrometer measurement of the individual strands found within the PVC insulation of each primary wire. Combined, these two numbers give us a conductor stranding.

#### Gauge = Conductor Stranding

**20 Gauge** = 7/0.0126 (7 strands that measure .0126 each)

**18 Gauge** = 16/0.010

**16 Gauge** = 19/0.0112 **14 Gauge** = 19/0.0140 **12 Gauge** = 19/0.0177

**10 Gauge** = 19/0.0223 **8 Gauge** = 19/0.0281

	General Uses	Spool Sizes Available										Colors Available														
Gauges		100,	500'	1000'	1500'	2000'	2500'	3000'	4000'	5000'	,0009	Thrifty	red	white	blue	green	black	yellow	brown	grey	purple	orange	pink	tan	light blue	light green
20 gauge	injectors, and sending	х	х	х							X		х	х	х	х	X	х	х	х	х	X	х	х		
18 gauge		х	х	х				X			X	х	х	х	х	х	X	x	х	X	х	x	х	х	х	x
16 gauge	relays switches switch	х	х	х			х			х		х	х	х	х	х	х	х	х	х	х	х	х	х	х	х
14 gauge		х	х	х		Х			х			х	х	х	Х	х	Х	х	Х	Х	х	Х	х	Х	х	х
12 gauge	Typically used more for power wires, grounds, relays, trailer sockets, motors, higher amperage circuits.	х	х	х	х				х			x	х	x	x	x	x	x	x	x	X	x	x			
10 gauge		х	х	х				x				х	х	x	x	х	x	x	x	x	x	x	x			
8 gauge	Component power and grounds, high amp circuits.	х	х	х									х	х		х	х					х				