

Uninsulated Wire Data by Wire Type

| Wire Type | | Bare Copper | | Tinned Copper | | Stainless Steel | | Nichrome | | |
|----------------------------|-----------------------|--|---------------------|--|---------------------|--|---------------------|--------------------------|---------------------|----------------|
| Alloy | | Electrolytic Tough Pitch (ETP) Copper (C11000) | | Electrolytic Tough Pitch (ETP) Copper (C11000), Tin-Plated | | SAE 316L | | Nichrome 80 | | |
| Chemical Composition | | 99.90% Cu Min., 0.04% O | | 99.90% Cu Min., 0.04% O, plus Sn coating | | 16-18% Cr, 10-14% Ni, 2-3% Mo, 2% Mn, 1% Si, Other Trace Elements, Bal. Fe | | 80% Ni, 20% Cr | | |
| Density at 20.0°C | | 0.323 lb/in ³ | | 0.323 lb/in ³ plus tin | | 0.289 lb/in ³ | | 0.304 lb/in ³ | | |
| Yield Strength (YTS) | | 12,000 psi | | 12,000 psi | | 20,000 – 40,000 psi | | — | | |
| Tensile Strength (UTS) | | 34,000 psi | | 34,000 psi | | 85,000 – 115,000 psi | | 100,000 psi | | |
| Operating Temperature | | — | | 150°C (302°F) | | 925°C (1697°F) | | 1177°C (2150°F) | | |
| Approx. Melting Point | | 1981°C (3598°F) | | 232°C (450°F) | | 1400°C (2552°F) | | 1400°C (2552°F) | | |
| AWG | Diameter ¹ | DCR (Ω/1000 ft) | Weight (lb/1000 ft) | DCR (Ω/1000 ft) | Weight (lb/1000 ft) | DCR (Ω/ft) | Weight (lb/1000 ft) | DCR (Ω/ft) | Weight (lb/1000 ft) | |
| Resistance & Weight by AWG | 14 | 0.0641" | 2.525 | 12.4 | 2.63 | 12.4 | 0.109 | 11.2 | 0.1583 | 11.7661 |
| | 16 | 0.0508" | 4.016 | 7.81 | 4.18 | 7.82 | 0.171 | 7.04 | 0.2517 | 7.3997 |
| | 18 | 0.0403" | 6.385 | 4.92 | 6.65 | 4.92 | 0.278 | 4.37 | 0.4002 | 4.6537 |
| | 20 | 0.0320" | 10.15 | 3.10 | 10.58 | 3.10 | 0.435 | 2.79 | 0.6363 | 2.9268 |
| | 22 | 0.0254" | 16.14 | 1.94 | 16.82 | 1.95 | 0.695 | 1.76 | 1.0118 | 1.8406 |
| | 24 | 0.0201" | 25.67 | 1.22 | 26.76 | 1.22 | 1.101 | 1.09 | 1.6088 | 1.1576 |
| | 26 | 0.0159" | 40.81 | 0.765 | 43.47 | 0.769 | 1.760 | 0.690 | 2.5581 | 0.7280 |
| | 28 | 0.0126" | 64.90 | 0.481 | 69.13 | 0.484 | 2.803 | 0.434 | 4.0676 | 0.4579 |
| | 30 | 0.0100" | 103.2 | 0.303 | 111.1 | 0.318 | 4.450 | 0.272 | 6.4677 | 0.2879 |
| | 32 | 0.0080" | 164.1 | 0.194 | 176.7 | 0.194 | 6.953 | 0.172 | 10.2841 | 0.1811 |
| | 34 | 0.0063" | 260.9 | 0.120 | 281.1 | 0.121 | 11.21 | 0.108 | 16.3523 | 0.1139 |
| | 36 | 0.0050" | 414.8 | 0.0757 | 447.1 | 0.0757 | 17.80 | 0.0680 | 26.0013 | 0.0716 |
| | 38 | 0.0040" | 659.6 | 0.0484 | 711.0 | 0.0484 | 27.81 | 0.0437 | 41.3438 | 0.0450 |
| | 40 | 0.0031" | 1049 | 0.0291 | 1130.9 | 0.0300 | 46.31 | 0.0270 | 65.7394 | 0.0283 |
| | 42 | 0.0025" | 1652 | 0.0189 | 1789.9 | 0.0189 | 71.20 | 0.0169 | 104.5301 | 0.0178 |
| | 44 | 0.0020" | 2589 | 0.0121 | 2845.5 | 0.0121 | 111.25 | 0.0109 | 166.2098 | 0.0112 |

¹ These dimensions are provided for reference. The actual diameter for a given wire type can slightly vary by different materials and other factors. See our product pages to determine nominal values.

All values are nominal unless otherwise specified. Click any number in bold to view the webpage for that standard Remington Industries product.



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sales@remingtonindustries.com | (815) 385-1987