

Carolprene® 105°C Welding Cable

600 Volt



Product Construction:

Conductor:

- 6 AWG through 500 kcmil fully annealed stranded bare copper Class K

Jacket:

- Premium-grade 105°C EPDM, black or red
- Temperature range: -50°C to +105°C

Jacket Marking:

- CAROLPRENE® (SIZE) 105°C WELDING CABLE 600 VOLT MADE IN USA (TRU-MARK SEQUENTIAL FOOTAGE)

Applications:

- Secondary voltage resistance welding leads
- Power supply applications not exceeding 600 volts AC

Features:

- Good flexibility
- Abrasion-resistant
- Good color retention
- TRU-Mark® sequential footage marking

Packaging:

- 250' (76.2 m), 500' (152.4 m), and 1000' (304.8 m) reels
- MCM sizes cut to length
- Other put-ups available on special order

Industry Approvals:

- RoHS Compliant

Suggested Ampacities For 600 Volt In-Line Applications

| AWG OR kcmil | AMPERES | AWG | AMPERES |
|--------------|---------|-----|---------|
| 500 kcmil | 695 | 1/0 | 190 |
| 350 kcmil | 552 | 1 | 160 |
| 250 kcmil | 445 | 2 | 140 |
| 4/0 | 310 | 4 | 100 |
| 3/0 | 265 | 6 | 75 |
| 2/0 | 223 | | |

Ampacities for portable cable, continuous-duty (ambient temperature of 40°C). May not be suitable for all installations per National Electrical Code®.

Ordering Part Number Example

01771.38.03

4/0 500' put-up in red .03 for red jacket

CAROLPRENE® 105°C WELDING CABLE – 600 VOLT – CLASS K – 30 AWG STRANDING

| CATALOG NUMBER | AWG OR kcmil | CONDUCTOR STRAND | NOMINAL O.D. | | APPROX. NET WT. LBS/M ^(S) | STD. CTN. |
|----------------|--------------|------------------|--------------|-------|--------------------------------------|-----------|
| | | | INCHES | mm | | |
| 01778 | 6 | 259/30 | 0.320 | 8.13 | 135 | 250' |
| 01777 | 4 | 406/30 | 0.375 | 9.53 | 172 | 250' |
| 01776 | 2 | 646/30 | 0.465 | 11.81 | 260 | 250' |
| 01775 | 1 | 812/30 | 0.495 | 12.57 | 317 | 250' |
| 01774 | 1/0 | 1025/30 | 0.560 | 14.22 | 400 | 250' |
| 01773 | 2/0 | 1274/30 | 0.615 | 15.62 | 487 | 250' |
| 01772 | 3/0 | 1613/30 | 0.670 | 17.02 | 605 | 250' |
| 01771 | 4/0 | 2029/30 | 0.750 | 19.05 | 827 | 250' |
| 99142* | 250 kcmil | 2496/30 | 0.830 | 21.08 | 976 | 250' |
| 99432* | 350 kcmil | 3441/30 | 0.950 | 24.13 | 1338 | 250' |
| 99202* | 500 kcmil | 5054/30 | 1.200 | 30.48 | 1995 | 250' |

© Actual shipping weight may vary.
* Non-stock item; minimum quantity required.

WELDING CABLE AMPACITIES SINGLE CONDUCTOR

Required Cable Sizes: For Welding Cable Application

| AMPS | length in feet for total circuit for secondary voltages only – do not use this table for 600 Volt in-line applications | | | | | | |
|------|--|------|------|------|------|------|------|
| | 100' | 150' | 200' | 250' | 300' | 350' | 400' |
| 100 | 4 | 4 | 2 | 2 | 1 | 1/0 | 1/0 |
| 150 | 4 | 2 | 1 | 1/0 | 2/0 | 3/0 | 3/0 |
| 200 | 2 | 1 | 1/0 | 2/0 | 3/0 | 4/0 | 4/0 |
| 250 | 1 | 1/0 | 2/0 | 3/0 | 4/0 | | |
| 300 | 1/0 | 2/0 | 3/0 | 4/0 | | | |
| 350 | 1/0 | 3/0 | 4/0 | | | | |
| 400 | 2/0 | 3/0 | | | | | |
| 450 | 2/0 | 4/0 | | | | | |
| 500 | 3/0 | 4/0 | | | | | |
| 550 | 3/0 | 4/0 | | | | | |
| 600 | 4/0 | | | | | | |

REQUIRED CABLE SIZES SHOWN IN AWG NUMBERS

The total circuit length includes both welding and ground leads (based on 4-volt drop) 60% duty cycle.

These values for current-carrying capacity are based on a copper temperature of 60°C (140°F), an ambient temperature of 40°C (104°F) and yield load factors from approximately 32% for the No. 2 AWG cable to approximately 23% for the No. 3/0 AWG cable, and higher for the smaller sizes. The sizes of cables generally used range from No. 2 AWG to No. 3/0 AWG. In actual service, the load factor may be much higher than indicated without overheating the cable, as the ambient temperature will generally be substantially lower than 40°C.

