

## WELDING CABLES

ARC Star™ offers a variety of welding cable assemblies in sizes 4, 2, 1, 1/0, 2/0, 3/0, and 4/0. We have leads, grounds, and extensions in any length and configuration. We also offer cut cable in multiple lengths without ends. We can supply ground clamps, electrode holders, lugs, and cable connectors with our ARC Star™ brands on the ends or OEM's such as, Tweco, or for any of the assemblies you may need.

## Features

- Premium USA made welding cable
- High strength tear-resistant flexible EPDM jacket
- Excellent resistance to cuts, abrasion, slag and impact
- Superior flexibility, even at cold temperatures to -50°C
- Resistant to heat, flame, solvents, water, grease, oil, weather and ozone
- Special stranded conductor for added flexibility and easy handling
- Available in custom cut sections fully assembled with ends
- Boxed cable kits optimized for shipping and display
- Private labeling available. MOQs and lead times will apply
- Only the highest quality cable accessories are used in our custom cable kits
- RoHS Compliant
- Lead-free
- Silicone-free
- Made in the USA

## Applications

- Used as power feed leads from the welding power source unit to the electrodes for arc welders; NEC article 630 electric welders
- Highly flexible lead cable used on battery cable, and temporary or permanent lead cables
- For use in all welding applications requiring leads, grounds and stingers/whips.
- Manufacturing - Architectural and Structural Metals, Mining, Agricultural, Motor Vehicles, Aerospace, Shipbuilding
- Construction - Residential, Commercial, Bridges, Dams, Utilities
- Or any other industry where welders may work

## Technical Specifications

## Spark Tested for 600V

Voltage rating procedure incorporating the IPCEA-S-19-81 D.C. spark test.

| AWG      | Voltage (KV) |
|----------|--------------|
| 6 to 2   | 22.5         |
| 1 to 4/0 | 27.0         |

**Separators:** Paper separator for ease of stripability

**Colors:** Black, Blue, Red, Green, Orange, Pink, Yellow, White  
Other colors available upon request

**Packaging:**

- Standard lengths: 250' and 500' reels; also available in 1,000' and 100 m reels
- Coiled, boxed, and shrink-wrapped package options for 25, 50, and 100 ft. lengths
- Custom lengths available upon request

**Insulation:** EDPM

**Conductor:** Annealed rope-stranded Class M, bare copper as per ASTM B3.34  
AWG; Meets CMA requirements of ASTM B172

**Operating Temperature Range:** - 50°C to + 105°C (- 58°F to + 221°F)  
ASTM D-4313 compliant

## Usage Instructions

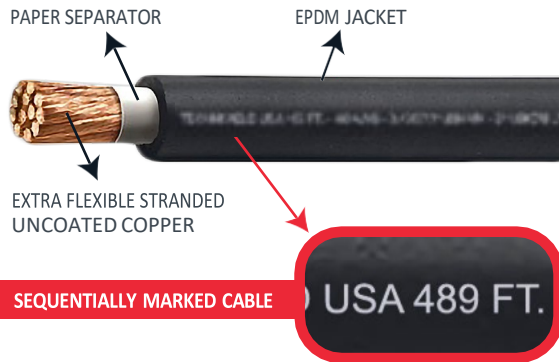
1. Determine cable size and length for application
2. Determine proper connector for cable
3. Strip and properly prepare cable tips
4. Select proper installing die tool with correct die in proper position on connector and activate tool or select proper installing dieless tool.
5. Crimp as directed by the manufacturer's instructions.
6. Properly secure connectors

## AVAILABLE IN BLACK OR ASSORTED COLORS AND REEL SIZE

| Item# | Diameter | Color | Ft/Reel   |
|-------|----------|-------|-----------|
| PRE40 | #4/0     | Black | 250 & 500 |
| PRE30 | #3/0     | Black | 250 & 500 |
| PRE20 | #2/0     | Black | 250 & 500 |
| PRE10 | #1/0     | Black | 250 & 500 |
| PRE1  | #1       | Black | 250 & 500 |
| PRE2  | #2       | Black | 250 & 500 |
| PRE4  | #4       | Black | 250 & 500 |

| Item#     | Diameter | Color  | Ft/Reel |
|-----------|----------|--------|---------|
| PRE20O250 | #2/0     | Orange | 250     |
| PRE10O250 | #1/0     | Orange | 250     |
| PRE1O250  | #1       | Orange | 250     |
| PRE2O250  | #2       | Orange | 250     |

### CABLE CROSS SECTION:



MEASUREMENTS ARE PRINTED DIRECTLY ON THE CABLE

| Item#     | Diameter | Color  | Ft/Reel   |
|-----------|----------|--------|-----------|
| PRE2R     | #2       | Red    | 500       |
| PRE1R     | #1       | Red    | 250 & 500 |
| PRE10R    | #1/0     | Red    | 500       |
| PRE10Y    | #1/0     | Yellow | 500       |
| PRE10P    | #1/0     | Pink   | 500       |
| PRE10G    | #1/0     | Green  | 500       |
| PRE10BLUE | #1/0     | Blue   | 500       |
| PRE20R    | #2/0     | Red    | 250 & 500 |
| PRE20Y    | #2/0     | Yellow | 500       |
| PRE20P    | #2/0     | Pink   | 500       |
| PRE20G    | #2/0     | Green  | 500       |
| PRE20BLUE | #2/0     | Blue   | 500       |

## ALL ARC STAR CABLE CONFORMS TO AWG CABLE SPECIFICATIONS

| AWG | Diameter (in) | Diameter (mm) | Area (kcmil) | Area (mm <sup>2</sup> ) | Resistance (Ω/1000ft, Cu) | Ampacity (60°C/75°C) | Insulation Thickness | Voltage (KV) |
|-----|---------------|---------------|--------------|-------------------------|---------------------------|----------------------|----------------------|--------------|
| 4/0 | 0.4600        | 11.684        | 211.6        | 107.2                   | 0.0490                    | 195 A / 230 A        | 0.115                | 27           |
| 3/0 | 0.4096        | 10.405        | 167.8        | 85.0                    | 0.0618                    | 165 A / 200 A        | 0.105                | 27           |
| 2/0 | 0.3648        | 9.266         | 133.1        | 67.4                    | 0.0779                    | 145 A / 175 A        | 0.104                | 27           |
| 1/0 | 0.3249        | 8.251         | 105.6        | 53.5                    | 0.0983                    | 125 A / 150 A        | 0.105                | 27           |
| 1   | 0.2893        | 7.348         | 83.7         | 42.4                    | 0.1239                    | 110 A / 130 A        | 0.005                | 27           |
| 2   | 0.2576        | 6.544         | 66.4         | 33.6                    | 0.1563                    | 95 A / 115 A         | 0.003                | 22.5         |
| 3   | 0.2294        | 5.827         | 52.6         | 26.7                    | 0.1970                    | 85 A / 100 A         | ---                  | ---          |
| 4   | 0.2043        | 5.189         | 41.7         | 21.2                    | 0.2485                    | 70 A / 85 A          | 0.003                | 22.5         |
| 5   | 0.1819        | 4.621         | 33.1         | 16.8                    | 0.3133                    | ---                  | ---                  | ---          |
| 6   | 0.162         | 4.115         | 26.3         | 13.3                    | 0.3951                    | 55 A / 65 A          | 0.003                | 22.5         |

### SUGGESTED AMPACITY FOR WELDING CABLE DISTANCE MEASURED IN FEET\*

| AMPS | 50' | 75'    | 100'   | 125'   | 150'   | 175'   | 200'   | 225'   | 250'   | 275'   | 300'   | 325'   | 350'   |
|------|-----|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 100  | #4  | #2     | #2     | #1     | #1     | 1/0    | 2/0    | 2/0    | 3/0    | 3/0    | 3/0    | 4/0    | 4/0    |
| 150  | #2  | #2     | #1     | 1/0    | 2/0    | 3/0    | 3/0    | 4/0    | 4/0    | 250mcm | 250mcm | 250mcm | 350mcm |
| 200  | #2  | #1     | 2/0    | 3/0    | 3/0    | 4/0    | 4/0    | 250mcm | 350mcm | 350mcm | 350mcm | 350mcm |        |
| 250  | #1  | 1/0    | 3/0    | 4/0    | 4/0    | 250mcm | 350mcm | 350mcm | 350mcm |        |        |        |        |
| 300  | #1  | 2/0    | 3/0    | 4/0    | 250mcm | 350mcm | 350mcm | 350mcm |        |        |        |        |        |
| 350  | 1/0 | 3/0    | 4/0    | 250mcm | 350mcm | 350mcm |        |        |        |        |        |        |        |
| 400  | 2/0 | 3/0    | 250mcm | 350mcm | 350mcm |        |        |        |        |        |        |        |        |
| 450  | 2/0 | 4/0    | 250mcm | 350mcm | 350mcm |        |        |        |        |        |        |        |        |
| 500  | 3/0 | 4/0    | 350mcm | 350mcm |        |        |        |        |        |        |        |        |        |
| 550  | 4/0 | 250mcm | 350mcm |        |        |        |        |        |        |        |        |        |        |
| 600  | 4/0 | 250mcm | 350mcm |        |        |        |        |        |        |        |        |        |        |

This table is for reference only. There are variables in welding applications, therefore it is recommended the user consult an electrical engineer for a particular welding application.

\*Distance from power source (per lead)