# 2/C CU 2000V EPDM/CPE Type W Industrial Grade Cable 90°C. MSHA Approved

Flexible Copper Conductors, Ethylene Propylene Diene Monomer (EPDM) Insulation, Single Layer Chlorinated Polyethylene (CPE) Jacket



Image not to scale. See Table 1 for dimensions.

## **CONSTRUCTION:**

- 1. Conductor: Bare, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B3/B172
- 2. Separator Tape: Non-conducting tape applied between the conductor and insulation to facilitate stripping
- 3. Insulation: Ethylene Propylene Diene Monomer (EPDM). Color coded black, white
- 4. Fillers: Paper fillers applied as needed to round the cable core
- 5. Reinforcement Binder: Reinforcing binder with twine applied over the core
- 6. Jacket: Black, flame resistant, thermosetting Chlorinated Polyethylene (CPE)

## **APPLICATIONS AND FEATURES:**

Southwire Type W cable is a heavy-duty industrial cable for use in flexible, portable, and extra-hard usage applications per NEC Article 400. Suitable for continuous submersion in water – ideal for submersible pumps. Also suitable for use in light to medium-duty mining applications. Sunlight and oil resistant. Highly flexible and easy to work with in cold conditions. Not for use as permanent building wiring. Meets FT-1 and FT-5 Flame Tests. cUL listing on select items only.

# **SPECIFICATIONS:**

- ASTM B3 Standard Specification for Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- UL 1650 Standard for Portable Power Cable
- MSHA Approved
- RoHS-2 (European Directive 2011/65/EU)

# **SAMPLE PRINT LEGEND**:

# AWG 2/C TYPE W PORTABLE POWER CABLE 90°C WET OR DRY 2000V OIL AND SUN RES (UL) P-136-35-MSHA AIW<sup>TM</sup> c (UL) FT1/FT5 (-40°C)





#### **Table 1 – Weights and Measurements**

| Stock<br>Number | Cond. Size    | Cond.<br>Number | Cond.<br>Strands | Diameter Over<br>Conductor | Insul.<br>Thickness | Diameter Over<br>Insulation | Approx.<br>OD | Approx.<br>Weight |
|-----------------|---------------|-----------------|------------------|----------------------------|---------------------|-----------------------------|---------------|-------------------|
|                 | AWG/<br>Kcmil | No.             | No.              | inch                       | mil                 | inch                        | inch          | lb/1000ft         |
| 559272          | 8             | 2               | 71               | 0.148                      | 60                  | 0.3                         | 0.84          | 320               |
| TBA             | 6             | 2               | 65               | 0.184                      | 60                  | 0.33                        | 0.91          | 410               |
| 570254          | 4             | 2               | 112              | 0.235                      | 60                  | 0.39                        | 1.01          | 550               |
| TBA             | 2             | 2               | 168              | 0.315                      | 60                  | 0.47                        | 1.24          | 840               |
| TBA             | 1             | 2               | 224              | 0.362                      | 80                  | 0.55                        | 1.44          | 1130              |
| TBA             | 1/0           | 2               | 259              | 0.385                      | 80                  | 0.58                        | 1.49          | 1260              |
| 559276          | 2/0           | 2               | 324              | 0.42                       | 80                  | 0.61                        | 1.56          | 1490              |
| TBA             | 3/0           | 2               | 418              | 0.47                       | 80                  | 0.66                        | 1.66          | 1780              |
| TBA             | 4/0           | 2               | 532              | 0.535                      | 80                  | 0.73                        | 1.82          | 2180              |
| TBA             | 250           | 2               | 608              | 0.605                      | 95                  | 0.83                        | 1.99          | 2510              |
| TBA             | 350           | 2               | 855              | 0.67                       | 95                  | 0.89                        | 2.15          | 3280              |
| TBA             | 500           | 2               | 1221             | 0.858                      | 95                  | 1.08                        | 2.59          | 4620              |

All dimensions are nominal and subject to normal manufacturing tolerances

◊ Cable marked with this symbol is a standard stock item

#### **Table 2 – Electrical and Engineering Data**

| Stock<br>Number | Cond.<br>Size | Cond.<br>Number | DC Resistance<br>@ 25°C | AC Resistance<br>@ 90°C | Min Bending<br>Radius | Allowable Ampacity<br>In Air 60°C† | Allowable Ampacity<br>In Air 75°C† | Allowable Ampacity<br>In Air 90°C† |
|-----------------|---------------|-----------------|-------------------------|-------------------------|-----------------------|------------------------------------|------------------------------------|------------------------------------|
|                 | AWG/<br>Kcmil | No.             | Ω/1000ft                | Ω/1000ft                | inch                  | Amp                                | Amp                                | Amp                                |
| 559272          | 8             | 2               | 0.65                    | 0.82                    | 5                     | 55                                 | 65                                 | 74                                 |
| TBA             | 6             | 2               | 0.42                    | 0.52                    | 5                     | 72                                 | 88                                 | 99                                 |
| 570254          | 4             | 2               | 0.26                    | 0.33                    | 6                     | 96                                 | 115                                | 130                                |
| TBA             | 2             | 2               | 0.17                    | 0.21                    | 7                     | 128                                | 152                                | 174                                |
| TBA             | 1             | 2               | 0.13                    | 0.16                    | 9                     | 150                                | 178                                | 202                                |
| TBA             | 1/0           | 2               | 0.11                    | 0.13                    | 9                     | 173                                | 207                                | 234                                |
| 559276          | 2/0           | 2               | 0.08                    | 0.1                     | 9                     | 199                                | 238                                | 271                                |
| TBA             | 3/0           | 2               | 0.07                    | 0.08                    | 10                    | 230                                | 275                                | 313                                |
| TBA             | 4/0           | 2               | 0.05                    | 0.07                    | 11                    | 265                                | 317                                | 361                                |
| TBA             | 250           | 2               | 0.04                    | 0.06                    | 12                    | 296                                | 354                                | 402                                |
| TBA             | 350           | 2               | 0.03                    | 0.04                    | 13                    | 363                                | 435                                | 495                                |
| TBA             | 500           | 2               | 0.02                    | 0.03                    | 16                    | 448                                | 537                                | 613                                |

† Ampacity based on NEC 400.5(A)(2) and is for a two-conductor W cable only where the individual conductors are not installed in raceways and are not in physical contact with each other except in lengths not to exceed 600 mm (24 in.) where passing through the wall of an enclosure.



