# 3/C CU 2000V Type SHD-GC RHINOSHIELD™ CPE Mining Cable 90°C. MSHA Approved

Flexible Copper conductors, EPR insulation, Cu/Nylon Braid Shield, Extra Heavy Duty Two Layer Chlorinated Polyethylene (CPE) Jacket with Optional Reflective Stripes




Image not to scale. See Table 1 for dimensions.

## CONSTRUCTION:

1. **Conductor:** Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B33/B172
2. **Separator Tape:** Non-conducting tape applied between the conductor and insulation to facilitate stripping
3. **Insulation:** Ethylene Propylene Rubber (EPR)
4. **Braid Shield:** Tin coated, soft drawn, annealed, copper braid shield (60% minimum coverage), combined with color coded nylon (Black, Blue, Red) or (Black, White, Red) with a 40% maximum coverage
5. **Ground Check Conductor:** Tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172 with high strength yellow, polypropylene insulation
6. **Ground Conductor:** Two uninsulated, tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172
7. **Filler:** Rubber Fillers as needed
8. **Reinforcement:** Reinforcing twine applied over core
9. **Inner Jacket:** Black, mold cured, extra heavy-duty integral fill, flame resistant, thermosetting Chlorinated Polyethylene (CPE)
10. **Reinforcement:** Reinforcing twine applied between the two jacket layers
11. **Outer Jacket:** Black, mold cured, extra heavy-duty, flame resistant, thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors available
12. **Reflective Stripe:** Highly visible reflective stripe embedded into the outer jacket to increase safety and help prevent cable runover (optional, contact your sales representative for part number)

## APPLICATIONS AND FEATURES:

RHINOSHIELD™ Type SHD-GC is a heavy-duty trailing cable where flexibility and maximum protection is required. For use with mobile, reeling, or stationary mining equipment, continuous mining machines, longwall mining systems, and blast hole drillers. It is also an ex- cellent choice for shovels, draglines, dredges, cranes and marine shore-to-ship power supplies, and anytime extra-durable, flexible cable is required. Suitable for continuous submersion in water. Ground check conductor provides fail-safe ground monitoring. Embossed print legend for easy cable identification. Cold Bend and Impact Tested to -50°C. For vertical drop requirements consult with factory application specialist.

## SPECIFICATIONS:

- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire

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- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- ICEA S-75-381 Portable and Power Feeder Cables for Use in Mines
- CSA Listed File # LL65300 FT1, FT4, FT5 CSA C22.2, No. 96 Portable Power Cables
- MSHA listed: passes MSHA flame test
- Meets or exceeds ICEA requirements as applicable for ICEA S-75-381/NEMA WC 58, ASTM B-3

## SAMPLE PRINT LEGEND:

SOUTHWIRE(R) RHINO(TM) BRAND CABLE XX AWG CU 3/C EPR TYPE SHD-GC 2000V -50C 90C SR CSA LL90458 FT1 FT4 FT5 P-07-KA140005-MSHA


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## Table 1 – Weights and Measurements

| Stock Number | Cond. Size | Cond. Number | Cond. Strands | Diameter Over Conductor | Insul. Thickness | Diameter Over Insulation | Ground | Ground Check Size | Inner Jacket Thickness | Jacket Thickness | Approx. OD | Approx. Weight | Jacket Color |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | AWG/ Kcmil | No. | No. | inch | mil | inch | No. x AWG | AWG | mil | mil | inch | lb/1000ft | |
| 678258 | 500 | 3 | 1221 | 0.900 | 100 | 1.106 | 2 x 4/0 | 6 | 155 | 190 | 3.189 | 9406 | RD |

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
TBA stock codes are estimations only and actual product may vary. Please wait until a stock code is assigned to purchase connectors and/or fittings.

## Table 2 – Electrical and Engineering Data

| Cond. Size | DC Resistance @ 25°C | AC Resistance @ 90°C | Inductive Reactance | Working Tension | Min Bending Radius | Allowable Ampacity In Air 90°C |
|---|---|---|---|---|---|---|
| AWG/ Kcmil | Ω/1000ft | Ω/1000ft | Ω/1000ft | lb | inch | Amp |
| 500 | 0.022 | 0.029 | 0.025 | 3420 | 25.5 | 487 |

* Ampacities based upon ICEA S-75-381 Table H-1.
* Inductive impedance is based on non-ferrous conduit with one diameter spacing center-to-center.


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