3/C CU 2KV Type SHD-GC RHINOSHIELD™ CPE Mining Cable 90°C. CSA - MSHA Approved

Flexible Copper conductors, EPR 100% Insulation Level, Cu/Nylon Braid Shield, Extra Heavy Duty Two Layer Chlorinated Polyethylene (CPE) Jacket with Optional Reflective Stripes

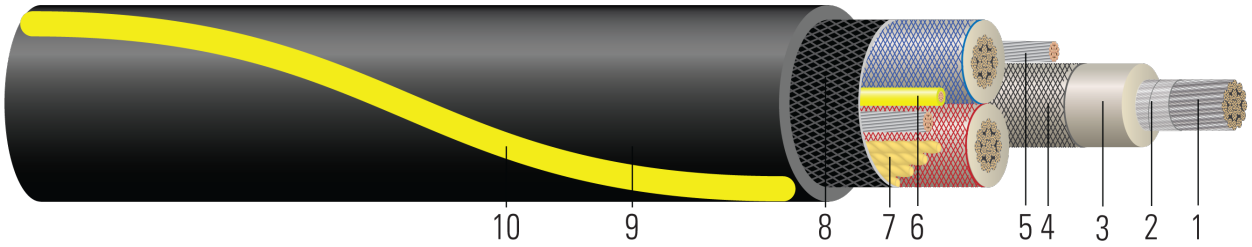


Image not to scale. See Table 1 for dimensions.

CONSTRUCTION:

1. **Conductor:** Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B33/B172
2. **Separator Tape:** Semi-conducting tape applied between the conductor and insulation to facilitate stripping
3. **Insulation:** Ethylene Propylene Rubber (EPR) 100% Insulation Level
4. **Braid Shield:** Tin coated, soft drawn, annealed, copper braid shield (60% minimum coverage), combined with color coded nylon (black, white, red) with a 40% maximum coverage
5. **Ground Conductors:** Two uninsulated, tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172
6. **Ground Check Conductor:** Tin coated, soft drawn, annealed, rope stranded, flexible lay copper per ASTM B33/B172 with yellow, high strength, polypropylene insulation
7. **Filler:** Rubber fillers as needed
8. **Tape:** SBR tape applied over the cabled core for improved mechanical integrity and ease of stripping. Reinforcing twine applied between SBR tape and outer jacket
9. **Outer Jacket:** Black, mold cured, extra heavy-duty, flame resistant, thermosetting Chlorinated Polyethylene (CPE). Other colors available
10. **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.

SPECIFICATIONS:

- ASTM B33 Standard Specification for Tin-Coated Soft or Annealed Copper Wire
- ASTM B172 Standard Specification for Rope-Lay-Stranded Copper Conductors Having Bunch-Stranded Copper Conductors
- CSA C22.2 No. 96 Portable Power Cables
- ICEA S-75-381 Portable and Power Feeder Cables for Use in Mines

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- MSHA Approved

SAMPLE PRINT LEGEND:

SOUTHWIRE (R) RHINO™ BRAND CABLE # AWG CU 3/C EPR TYPE SHD-GC 2000V -50°C 90°C P-07-KA140005 MSHA

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	Jacket Thickness	Approx. OD	Approx. Weight
	AWG/ Kcmil	No.	No.	inch	mil	inch	No. x AWG	AWG	mil	inch	lb/1000ft
678035	14	3	41	0.073	60	0.200	2 x 14	14	125	0.852	359
569653	12	3	65	0.094	70	0.235	2 x 12	12	155	0.950	492
569654	10	3	104	0.117	60	0.240	2 x 12	12	155	1.000	554
569655	8	3	168	0.153	70	0.301	2 x 10	10	145	1.093	740
679865	6	3	133	0.198	70	0.356	2 x 10	10	165	1.247	874
649339	4	3	259	0.235	70	0.400	2 x 8	8	185	1.366	1227
587868	2	3	308	0.302	70	0.466	2 x 7	8	180	1.535	1743
586860^	1	3	385	0.347	80	0.512	2 x 6	8	235	1.732	2249
587863	1/0	3	273	0.354	80	0.557	2 x 4	8	290	1.850	2534
584907	2/0	3	324	0.400	80	0.586	2 x 4	8	270	1.956	2768
641341	3/0	3	418	0.533	80	0.672	2 x 2	8	150	2.126	3651
586387	4/0	3	532	0.550	80	0.751	2 x 2	8	260	2.298	3873
653617	250	3	608	0.682	100	0.816	2 x 1/0	6	205	2.480	4888
647217	350	3	855	0.809	100	0.926	2 x 2/0	6	135	2.795	6204
640977	500	3	1221	0.987	100	1.106	1 x 4/0	6	190	3.189	9022

All dimensions are nominal and subject to normal manufacturing tolerances
◊ Cable marked with this symbol is a standard stock item
^ Blue jacket

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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
14	2.814	3.555	0.045	28	6.8	-
12	1.774	2.241	0.043	44	7.6	-
10	1.111	1.404	0.038	70	8.0	49
8	0.715	0.903	0.037	112	8.7	69
6	0.450	0.568	0.035	179	9.9	93
4	0.282	0.356	0.034	285	10.9	122
2	0.179	0.226	0.032	453	12.2	159
1	0.143	0.180	0.031	572	13.8	184
1/0	0.113	0.143	0.032	722	14.8	211
2/0	0.090	0.114	0.030	910	15.6	243
3/0	0.072	0.091	0.027	1147	17.0	279
4/0	0.057	0.073	0.029	1447	18.3	321
250	0.048	0.062	0.026	1710	19.8	355
350	0.035	0.046	0.025	2394	22.3	435
500	0.024	0.034	0.024	3420	25.5	536

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