





## MINING CABLE

In our ongoing commitment to innovation and offering the broadest array of capabilities, Southwire introduces our new Mining Cable product line. Whether you choose our standard grade 2000 Volt cables, our RHINOSHIELD™ premium grade cables or one of our top of the line RHINOFLEX™ products, you can be certain our quality and design will provide the necessary service life that is needed to get the job done.

#### THE COMPANY

Since 1950, Southwire has grown into North America's largest wire and cable producer and supplier by offering the broadest line of the highest-quality products.

#### THE PEOPLE

More than 7,000 people at sales offices, customer service centers and manufacturing facilities throughout North America are dedicated to developing the highest-quality products backed by quality service.

#### THE PRODUCTS

Southwire offers a full line of products for a wide range of applications. Now you can get it all from one supplier.

#### THE SERVICE

With customer service centers located throughout North America, Southwire has the capability to provide all of your wire and cable needs in one delivery, saving you time and money.

#### THE INNOVATION

Dedicated to technological innovation backed by experience means Southwire is always one step ahead, expanding its product lines and services to meet the needs of customers.

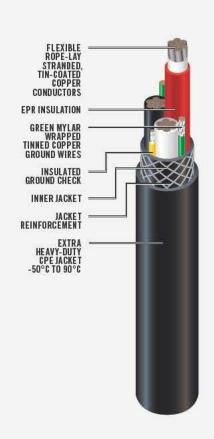


# TABLE OF CONTENTS

## MINING CABLE

	RHINOFLEX™ PREMIUM 2 kV TYPE G-GC (or G) ROUND	4
	RHINOFLEX™ PREMIUM 2 kV TYPE G-GC (or G) FLAT	6
	RHINOFLEX™ PREMIUM 2 kV TYPE W ROUND	8
	RHINOFLEX™ PREMIUM 2 kV TYPE W FLAT	10
	RHINOSHIELD™ TYPE SHD-GC 2 kV	12
	RHINOSHIELD™ TYPE SHD-GC 5-25 kV	14
Lan	RHINOSHIELD™ TYPE SHD-CGC 5 kV	18
	RHINOPOWER™ TYPE MP-GC XLP-PVC 5-25 kV	20
	RHINOPOWER™ TYPE MP-GC EPR-CPE 5-25 kV	24
	REMOTE POWER & DRILL CORD 600 V	26
	INDUSTRIAL GRADE TYPE G-GC 2 kV	28
-8-	INDUSTRIAL GRADE TYPE G 2 kV	30
	INDUSTRIAL GRADE TYPE W 2 kV	32
<b>(2)</b>	CSA TECK 90 600 V CONTROL CABLE	34
	CSA TECK 90 1000 V POWER CABLE	36
	RHINO BRAND® MINING CABLE WITH REFLECTIVE STRIPE	38

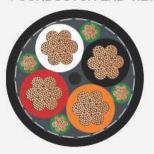
# RHINOFLEX™ PREMIUM 2 kV TYPE G-GC (or G) ROUND



3-CONDUCTOR END VIEW



4-CONDUCTOR END VIEW



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use with all portable, temporary or permanent power, mobile or stationary mining equipment, shuttle cars, mobile drills, pumps, roof bolters, conveyors and portable power where equipment grounding is required.
- Type G-GC can also be used where a ground check conductor is required for fail-safe ground monitoring.

#### CONSTRUCTION

- CONDUCTORS: Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B-33/B-172.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded ozone, oil and water resistant (90°C) thermosetting flame resistant Ethylene Propylene Rubber (EPR) per ICEA S-75-381/NEMA WC-58.
- · COLOR CODE: 3-Conductor: Black, White, Red 4-Conductor: Black, White, Red, Orange
- CABLING: 3-CONDUCTOR TYPE G-GC: Three conductors are assembled round in a helical configuration with two green mylar wrapped grounding conductors and one yellow insulated HD EPR ground check. A woven nylon polyester binder is served over the entire cabled assembly for added core stability.
- CABLING: 4-CONDUCTOR TYPE G: Four conductors are assembled round in a helical configuration with four green mylar wrapped grounding conductors. A woven nylon polyester binder is served over the entire cabled assembly for added core stability.
- JACKET REINFORCEMENT: A woven nylon polyester braid will be served between the inner and outer jacket layers for added mechanical integrity.
- JACKET: Mold-cured, extra heavy-duty, pure integral fill, dual layer flame resistant, thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors and reflective stripes available for minimum run. Available in High Tensile Rhino-X and TPU Jackets (consult with factory).

#### STANDARDS AND REFERENCES

- Southwire Brand Mining Cable meets or exceeds applicable requirements of ICEA Standard S-75-381/NEMA WC-58, ASTM B-172 and B-33
- MSHA listed; passes MSHA flame test
- OSHA acceptable

- Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Excellent flexibility, productivity and durability
- Free stripping insulation via non-conductive mylar tape separator
- Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend







POW	ER CONDUCT	ORS	GROUND	ING CON	DUCTORS	GROU	ND CHECK	NOM.	AMPO	APPROX. SHIP WT.
SIZE	STRANDS	INS.	NUMBER	SIZE	STRANDS	SIZE	STRANDS	O.D.	AMPS <sup>1</sup>	lbs/1000 ft
				3	-CONDUCTOR	, TYPE G	-GC			
8	168	0.060	2	10	104	10	104	0.975	59	654
6	133	0.060	2	10	104	10	104	1.050	79	891
4	259	0.060	2	8	168	10	104	1.190	104	1030
2	308	0.060	2	7	133	8	168	1.340	138	1440
1	385	0.080	2	6	133	8	168	1.510	161	1885
1/0	273	0.080	2	5	133	8	168	1.650	186	2337
2/0	324	0.080	2	4	259	8	168	1.750	215	2555
3/0	418	0.080	2	3	259	8	168	1.860	249	3565
4/0	532	0.080	2	2	308	8	168	2.040	287	3594
250	608	0.095	2	1	385	8	168	2.360	320	5000
350	855	0.095	2	1/0	273	8	168	2.680	394	6020
500	1221	0.095	2	3/0	324	8	168	3.030	487	8500
					4-CONDUCTO	R, TYPE	G			
4	259	0.060	4	12	65	(#)	+	1.270	93	1320
2	308	0.060	4	10	104	323	20	1.480	122	1820
1	385	0.080	4	8	168	(#)·	+	1.680	143	2390

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.

# RHINOFLEX™ PREMIUM 2 kV TYPE G-GC (or G) FLAT



3-CONDUCTOR END VIEW



2-CONDUCTOR END VIEW



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use with mobile or stationary mining equipment, shuttle cars, mobile drills, pumps, roof bolters, conveyors and portable power where equipment grounding is required.
- Type G-GC can also be used where a ground check conductor is required for fail-safe ground monitoring.

#### CONSTRUCTION

- CONDUCTORS: Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B-33/B-172.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded, ozone, oil and water resistant (90°C) thermosetting flame resistant Ethylene Propylene Rubber (EPR) per ICEA S-75-381/NEMA WC-58.
- COLOR CODE: 3-CONDUCTOR: Black, White, Red
   2-CONDUCTOR: Black, White
- CABLING: 3-CONDUCTOR TYPE G-GC: Three conductors are assembled in a parallel, flat configuration with one green insulated grounding conductor and one yellow insulated ground check. A non-conductive mylar tape separator is laid between the phase contact points to limit phase-to-phase bonding.
- 2-CONDUCTOR TYPE G: Two conductors are assembled D-shaped in a parallel flat configuration with one green insulated grounding conductor and a non-conductive mylar tape separator applied between the phase contact points to limit phase-tophase bonding.
- REINFORCEMENT: A polyester reinforcement is served over the cabled assembly under the outer jacket to maintain mechanical integrity.
- JACKET: Mold cured, extra heavy-duty single layer flame resistant thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors available. Available with High Tensile Rhino-X Jacket (consult with factory).

#### STANDARDS AND REFERENCES

- Southwire Brand Mining Cable meets or exceeds applicable requirements of ICEA Standard S-75-381/NEMA WC-58, ASTM B-172 and B-33
- MSHA listed; passes MSHA flame test
- OSHA acceptable

- Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Excellent flexibility and low profile
- Free stripping insulation via non-conductive mylar tape separator
- · Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend







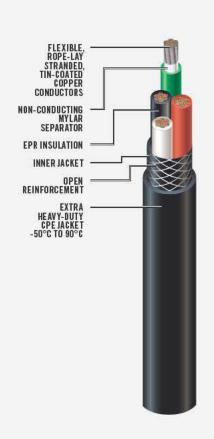


PC	POWER CONDUCTORS		GROUNDING	GROUND	NOM.	AMDC1	APPROX. SHIP WT.	
SIZE	STRANDS	INSULATION	CONIDS SIZE CHECK SIZE		0.D.	AMPS <sup>1</sup>	lbs/1000 ft	
			3-CONDUC	TOR, TYPE G-G	C,			
6	133	0.060	8-168	8-168	0.670 × 1.690	79	1046	
4	259	0.060	7-114	8-168	$0.750 \times 1.890$	104	1431	
2	308	0.060	5-102	8-168	0.810 × 2.230	138	2013	

P0	WER CONDUCT	ORS	GROUNDING CONDUCT		APPROX. AMDS1		A M DC1	
SIZE	STRANDS	INSULATION	NUMBER	SIZE	STRANDS	0.D.	AIVIFS	SHIP WT. lbs/1000 ft
			2-C0	NDUCTOR, TY	PE G	-	,	Î
6	133	0.060	1	8	168	0.560 × 1.020	95	538
4	259	0.060	1	7	114	$0.610 \times 1.150$	127	692
2	308	0.060	1	5	102	0.730 × 1.350	167	946
1/0	273	0.060	1	3	133	$0.930 \times 1.670$	217	1850

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.

# RHINOFLEX™ PREMIUM 2 kV



#### 3-CONDUCTOR END VIEW



4-CONDUCTOR END VIEW



#### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use with mobile or stationary mining equipment, shuttle car, mobile drills, pumps, roof bolters and conveyors.
- For use as portable power and temporary power supply cables where a ground check is not required.

#### CONSTRUCTION

- CONDUCTORS: Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B-33/B-172.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded ozone, oil and water resistant (90°C) thermosetting flame resistant Ethylene Propylene Rubber (EPR) per ICEA S-75-381/NEMA WC-58.
- COLOR CODE: 3-CONDUCTOR: Black, White, Green
   4-CONDUCTOR: Black, White, Red, Green
- CABLING: Three and four conductor Type W, are assembled in a round configuration
  with a woven nylon polyester binder served over the entire cable assembly for added
  core stability.
- JACKET REINFORCEMENT: A woven nylon polyester braid will be served between the inner and outer jacket layers for improved mechanical integrity.
- JACKET: Mold cured, extra heavy-duty, pure integral fill, dual layer, flame resistant, thermosetting Chlorinated Polyethylene (CPE). 2-conductor and 5-conductor available with minimum run. Alternate jacket colors and reflective stripes available. Available with High Tensile Rhino-X Jacket (consult with factory).

#### STANDARDS AND REFERENCES

- Southwire Brand Mining Cable meets or exceeds applicable requirements of ICEA Standard S-75-381/NEMA WC-58, ASTM B-172 and B-33
- MSHA listed; passes MSHA flame test
- OSHA acceptable

- Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Excellent flexibility, productivity and durability
- Free stripping insulation via non-conductive mylar tape separator
- Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend



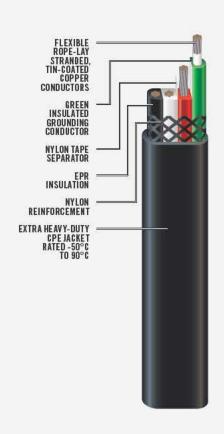




	POWER CONDUCTORS	5	APPROX.	AMPO	APPROX. SHIP WT.
SIZE	STRANDS	INSULATION	0.D.	AMPS <sup>1</sup>	lbs/1000 ft
		3-CON	DUCTOR		
8	168	0.060	0.910	59	638
6	133	0.060	1.010	79	722
4	259	0.060	1.170	104	1010
2	308	0.060	1.340	138	1415
1	385	0.080	1.510	161	1785
1/0	273	0.080	1.650	186	2125
2/0	324	0.080	1.750	215	2570
3/0	418	0.080	1.890	249	2895
4/0	532	0.080	2.040	287	3790
		4-CON	DUCTOR <sup>2</sup>		
8	168	0.060	0.990	54	604
6	133	0.060	1.110	72	807
4	259	0.060	1.270	93	1280
2	308	0.060	1.480	122	1683
1	385	0.080	1.680	143	2147
1/0	273	0.080	1.790	165	2545
2/0	324	0.080	1.930	192	3005
3/0	418	0.080	2.070	221	3612
4/0	532	0.080	2.260	255	4485

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381. <sup>2</sup>4 conductor ampacity is based on three conductors carrying current.

# RHINOFLEX™ PREMIUM 2 kV



#### 4-CONDUCTOR END VIEW



#### 2-CONDUCTOR END VIEW



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

 For use with mobile or stationary mining equipment: shuttle cars, mobile drills, pumps, roof bolters, lift magnets, conveyors, battery chargers and oil field power as portable and temporary power supply.

#### CONSTRUCTION

- CONDUCTORS: Tin coated, soft drawn, annealed flexible, rope-lay stranded copper per ASTM B-33/B-172.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded 90°C ozone, oil and water resistant (90°C) thermosetting flame resistant Ethylene Propylene Rubber (EPR) per ICEA S-75-381/NEMA WC-58.
- COLOR CODE: 4-CONDUCTOR: Black, White, Red, Green
   2-CONDUCTOR: Black, White
- CABLING: 2 OR 4-CONDUCTOR TYPE W: Two or four conductors are assembled in a square, D-shaped, parallel, and flat configuration with a non-conductive mylar tape separator laid between the phase contact points to limit phase-to-phase bonding.
- REINFORCEMENT: A woven nylon polyester reinforcement is served over the cabled assembly under the outer jacket to maintain mechanical integrity.
- JACKET: Mold-cured, extra heavy-duty single layer flame resistant thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors available. Available with High Tensile Rhino-X Jacket (consult with factory).

#### STANDARDS AND REFERENCES

- Southwire Brand Mining Cable meets or exceeds applicable requirements of ICEA Standard S-75-381/NEMA WC-58, ASTM B-172 and B-33
- MSHA listed; passes MSHA flame test
- OSHA acceptable

- Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Excellent flexibility and low profile
- Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend



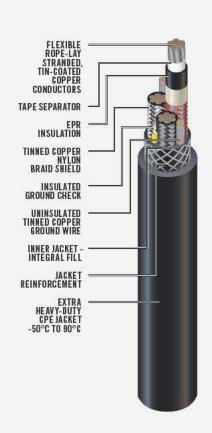




	POWER CONDUCTORS	S	APPROX.	AMDel	APPROX. SHIP WT.
SIZE	STRANDS	INSULATION	O.D.	AMPS <sup>1</sup>	lbs/1000 ft
		2-CONI	DUCTOR		
6	133	0.060	0.580 × 0.930	95	435
4	259	0.060	0.610 × 1.050	127	572
2	308	0.060	0.730 × 1.240	167	856
ì	385	0.080	0.810 × 1.400	191	1078
1/0	273	0.080	0.930 × 1.510	217	1298
2/0	324	0.080	0.990 × 1.630	250	1612
		4-CONI	DUCTOR		
6	133	0.060	0.680 × 1.710	72	890
4	259	0.060	$0.760 \times 1.910$	93	1178
2	308	0.060	0.820 × 2.250	122	1602
1	385	0.080	0.980 × 2.540	143	2085

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.

# RHINOSHIELD™ TYPE SHD-GC 2 kV



**END VIEW** 



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use with mobile, reeling, or stationary mining equipment, continuous mining machines, or longwall loading machines, blast hole drillers, and heavy-duty trailing cable where maximum protection is required.
- Type SHD-GC is also an excellent choice for shovels, draglines, dredges, cranes and marine ships to shore power supply anytime extra durability is required.

#### CONSTRUCTION

- CONDUCTORS: Tin coated, soft drawn, annealed, flexible, rope-lay stranded copper per ASTM B-33/B-172.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Black flame resistant, Ethylene Propylene Rubber (EPR), ozone, oil, water solvents, corrosive, and abrasion resistant per ICEA S-75-381/NEMA WC-58.
- SHIELD SEPARATOR: An SBR tape is applied to each primary phase's insulation, 1/2 overlap with adhesive side up.
- CONDUCTOR SHIELD: Tin coated, soft drawn, annealed, copper braid shield (60% min. phase coverage), duplexes with nylon textile buffer color code tracer (40% max, phase coverage).
- · COLOR CODE: Black, White, Red
- GROUND WIRES: Tin coated, uninsulated, soft drawn, annealed, rope bunched, flexible lay construction, per ASTM B-172 and B-33.
- GROUND CHECK: Yellow, flame resistant, High Durometer Ethylene Propylene Rubber insulation over tin coated, rope bunched, flexible lay copper.
- CABLING: Three insulated shielded conductors are assembled in a helical configuration with two non-insulated ground wires and one yellow HD EPR insulated ground check. A woven nylon polyester binder is served over the entire cable assembly for added core stability.
- JACKET REINFORCEMENT: A woven nylon polyester binder will be served between the inner and outer jacket layers for improved mechanical integrity.
- JACKET: Mold cured, extra heavy-duty, pure integral fill, dual layer, flame resistant, thermosetting Chlorinated Polyethylene (CPE) jacket. Alternate jacket colors and reflective stripes available. Available in High Tensile Rhino-X Jacket (consult with factory).

#### STANDARDS AND REFERENCES

- Southwire Brand Mining Cable meets or exceeds applicable requirements of ICEA Standard S-75-381/NEMA WC-58, ASTM B-172 and B-33
- MSHA listed; passes MSHA flame test
- OSHA acceptable







#### BENEFITS

- · Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Excellent flexibility, safety and durability
- Free stripping insulation via non-conductive mylar tape separator
- Tinned coated rope bunched, flexible lay copper per ASTM B-172 and B-33
- Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend

POW	ER CONDUCT	ors	GROUI	NDING CO	NDUCTORS	GROU	ND CHECK	APPROX.	AMDCI	APPROX. SHIP WT.
SIZE	STRANDS	INS.	NO.	SIZE	STRANDS	SIZE	STRANDS	O.D.	AMPS <sup>1</sup>	lbs/1000 ft
					3-COND	UCTOR				
6	133	0.070	2	10	104	10	104	1.29	93	1120
4	259	0.070	2	8	168	8	168	1.40	104	1347
2	308	0.070	2	6	133	8	168	1.59	138	1895
1/0	273	0.080	2	4	259	8	168	1.86	186	2785
2/0	324	0.080	2	3	259	8	168	2.00	215	3190
3/0	418	0.080	2	2	308	8	168	2.13	249	3636
4/0	532	0.080	2	1	385	8	168	2.31	287	4684
250	608	0.095	2	1/0	273	6	168	2.51	320	5750
350	855	0.095	2	2/0	324	6	168	2.81	397	6817
500	1221	0.095	2	4/0	532	6	168	3.19	487	9998

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.

# RHINOSHIELD™ TYPE SHD-GC 5-25 kV



**END VIEW** 



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use with mobile, reeling, or stationary mining equipment, continuous mining machines, or longwall loading machines, blast hole drillers, and heavy-duty trailing cable where maximum protection is required.
- Type SHD-GC is also an excellent choice for high voltage shovels, draglines, dredges, cranes and marine ship to shore power supply anytime extra durability is required.

#### CONSTRUCTION

- CONDUCTORS: Tin coated, soft drawn, annealed, flexible, rope-lay, stranded copper per ASTM B-33/B-172.
- STRAND SHIELD: Extruded semi-conductive layer.
- INSULATION: HV grade flame resistant thermosetting lead free Ethylene Propylene Rubber (EPR) 100% insulation per ICEA S-75-381/NEMA WC-58.
- INSULATION SHIELD: Extruded semi-conductive layer.
- COLOR CODE: Black, White, Red
- BRAID SHIELD: Tin coated, soft drawn, annealed, copper braid shield (60% min. phase coverage), duplexes with nylon textile buffer color code tracer (40% max. phase coverage).
- GROUND WIRES: Uninsulated, tin coated, soft drawn, annealed, rope stranded, flexible lay copper.
- GROUND CHECK: Tin coated, soft drawn, annealed, rope stranded, flexible lay copper; with Yellow High Durometer (HD) Thermosetting Ethylene Propylene Rubber insulation.
- CABLING: Three shielded conductors are assembled round in a helical configuration with two uninsulated ground wires, one yellow insulated ground check and an overall tape separator.
- REINFORCEMENT: A woven nylon polyester reinforcement binder is served over the entire cabled assembly for improved mechanical integrity.
- JACKET: Mold cured, extra heavy-duty, modified integral fill, dual layer, flame resistant, thermosetting Chlorinated Polyethylene (CPE). Alternate jacket colors and reflective stripes available. Available with High Tensile Rhino-X and TPU Jackets (consult with factory).







#### STANDARDS AND REFERENCES

- Meets or exceeds ICEA requirements as applicable for ICEA S-75-381/NEMA WC 58, ASTM B-3
- MSHA listed; passes MSHA flame test

- · Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- · Excellent flexibility, safety and durability
- Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend





POV	VER CONDUCT	ORS	GRO	OUNDING	GROL	JND CHECK	NOM.		APPROX. SHIP WT.
SIZE	STRANDS	INS.	SIZE	STRANDS	SIZE	INSULATION	0.D.	AMPS <sup>1</sup>	lbs/1000 ft
				50	5000 VOLTS				
6	133	0.110	10	104	8	0.045	1.56	79	1130
4	259	0.110	8	168	8	0.045	1.68	104	1490
2	308	0.110	6	133	8	0.045	1.87	138	2480
1	385	0.110	5	133	8	0.045	1.95	161	2565
1/0	273	0.110	4	259	8	0.045	2.08	186	2657
2/0	324	0.110	3	259	8	0.045	2.20	215	3282
3/0	418	0.110	2	308	8	0.045	2.36	249	3850
4/0	532	0.110	1	385	8	0.045	2.50	287	5085
250	608	0.120	1/0	273	6	0.045	2.69	320	6285
350	855	0.120	2/0	324	6	0.045	2.95	394	7780
500	1221	0.120	4/0	532	6	0.045	3.31	487	10405
				80	00 VOLT	S			
4	259	0.150	8	168	8	0.045	1.94	122	1937
2	308	0.150	6	133	8	0.045	2.12	159	2416
1	385	0.150	5	133	8	0.045	2.21	184	2895
1/0	273	0.150	4	259	8	0.045	2.32	211	3085
2/0	324	0.150	3	259	8	0.045	2.46	243	4189
3/0	418	0.150	2	308	8	0.045	2.62	279	4850
4/0	532	0.150	1	385	8	0.045	2.75	321	5144
250	608	0.150	1/0	273	6	0.045	2.89	355	6650
350	855	0.150	2/0	324	6	0.045	3.20	435	7998
500	1221	0.150	4/0	532	6	0.045	3.56	536	10687

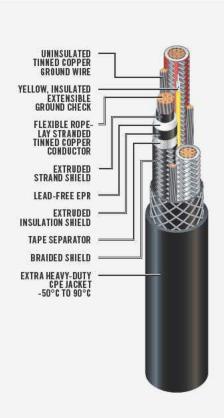
<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.



PO	WER CONDUCTO	ORS	GRO	DUNDING	GROU	JND CHECK	NOM.	AMBOL	APPROX. SHIP WT.
SIZE	STRANDS	INS.	SIZE	STRANDS	SIZE	INSULATION	0.D.	AMPS <sup>1</sup>	lbs/1000 ft
				15	000 VOL	rs			
2	308	0.210	6	133	8	0.045	2.41	164	3320
1	385	0.210	5	133	8	0.045	2.52	187	3875
1/0	273	0.210	4	259	8	0.045	2.64	215	4250
2/0	324	0.210	3	259	8	0.045	2.73	246	4405
3/0	418	0.210	2	308	8	0.045	2.90	283	5200
4/0	532	0.210	1	385	8	0.045	3.05	325	6415
250	608	0.210	1/0	273	6	0.045	3.15	359	6895
350	855	0.210	2/0	324	6	0.045	3.40	437	9050
500	1222	0.210	4/0	532	6	0.045	3.68	534	10890
				25	000 VOLT	S			
1	385	0.260	5	133	8	0.045	2.95	191	4250
1/0	273	0.260	4	259	8	0.045	3.05	218	4760
2/0	324	0.260	3	259	8	0.045	3.20	249	5520
3/0	418	0.260	2	308	8	0.045	3.33	286	6350
4/0	532	0.260	1	385	8	0.045	3.50	327	5144
250	608	0.260	1/0	273	6	0.045	3.54	360	7895
350	855	0.260	2/0	324	6	0.045	3.85	439	9980

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.

## RHINOSHIELD™ TYPE SHD-CGC 5 kV



#### END VIEW



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- Cable is used in underground long wall shearer systems where cables are required
  to be shielded in conjunction with an extensible center ground check. Also used
  where cables are required to be enclosed in a cable handler, such as long wall mining
  applications or pendant wheel reeling systems.
- Consult with factory for High Cycle continuous reeling applications

#### CONSTRUCTION

- CONDUCTORS: Class I, tin coated, soft drawn, annealed, flexible rope-lay, stranded copper construction per ASTM B-33 and B-172
- STRAND SHIELD: Extruded semi-conductive layer
- CONDUCTOR INSULATION: Lead free, flame resistant, Ethylene Propylene Rubber (EPR) per ICEA S-75-381/NEMA WC-58
- INSULATION SHIELDS: Extruded semi-conductive layer under a tinned, annealed, copper braid (60% minimum phase coverage), duplexed with a nylon denier textile phase color ID tracer (40% max phase cover).
- · COLOR CODE: Black, White, Red
- GROUND WIRES: Class I, uninsulated tin coated, soft drawn, annealed, rope bunched, flexible lay strand construction copper per ASTM B-33 and B-172.
- GROUND CHECK: #16 AWG tinned, annealed copper, rope bunched, flexible lay, extensible strand construction, with 45 mils of polypropylene (PPE) per ASTM B-33, and B-172, ICEA S-75-381/NEMA WC-58, CAN/CSA-C22.2 No. 96 Portable Power Cable Type SHD-GC and SHD-BGC
- CABLING: Three insulated and shielded conductors assembled in a helical
  configuration with three uninsulated ground wires laid in the interstices to create a
  balanced assembly. A #16 AWG extensible yellow insulated ground check placed in
  the center interstice of the cable with a woven nylon polyester binder served over the
  entire cabled assembly for added core stability per ICEA S-75-381/NEMA WC-58,
  CAN/CSA-C22.2 No 96 Portable Power Cable Type SHD-GC and SHD-BGC.
- INNER JACKET: Extruded pure integral filled black MSHA approved flame resistant thermosetting Chlorinated Polyethylene (CPE) designed to lock cabled assembly in place to combat core movement and de-cabling in highly torsional applications.
- JACKET REINFORCEMENT: A woven nylon polyester binder shall be served between the inner and outer jacket layers providing increased cable integrity.
   Also available with taped core.
- OUTER JACKET: Mold cured, extra heavy-duty, thermosetting Chlorinated Polyethylene (CPE).
- JACKET PRINT: Permanent marking, MFG, Brand, AWG size, type, voltage, operation temp range, MSHA/CSA listings via embossed print legend.

#### STANDARDS AND REFERENCES

- Southwire Brand Mining Cable meets or exceeds applicable requirements of ICEA Standard S-75-381/NEMA WC-58, ASTM B-172 and B-33
- MSHA listed; passes MSHA flame test
- OSHA acceptable







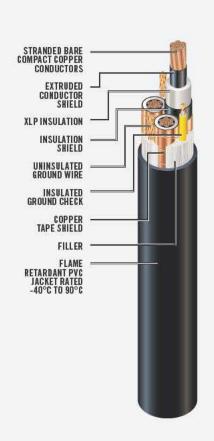
#### **BENEFITS**

- Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Excellent flexibility, safety and durability
- Free stripping insulation via non-conductive mylar tape separator
- · Suitable for continuous submersion in shallow water
- Jacket will have permanent marking via embossed printed legend
- · Center ground check designed for less stress related failures in flexing application

PO	VER CONDUCTO	ORS	GRO	DUNDING	GROUND CHECK	NOM.	AMPS <sup>1</sup>	APPROX. SHIP WT.	
SIZE	STRANDS	INS.	SIZE	STRANDS	SIZE	SIZE 0.D.		lbs/1000 ft	
2/0	324	0.110	5	133	16	2.20	243	3660	
3/0	418	0.110	4	259	16	2.36	279	4010	
4/0	532	0.116	3	259	16	2.50	321	4950	
350	855	0.120	1	308	16	2.59	435	7480	

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table H-1 of ICEA S-75-381.

# RHINOPOWER™ TYPE MP-GC XLP-PVC 5-25 kV



END VIEW



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

 Use in stationary, horizontal, HV mine power, distribution circuits, for permanent or semi-portable applications with power transmission in deep mines, surface mines, open pits, tunnels, in conduit or duct, suitable for direct burial in wet or dry locations.
 For vertical drop requirements consult with factory application specialist.

#### CONSTRUCTION

- CONDUCTORS: Bare, soft drawn, annealed copper per ASTM B-3, compact stranded per ASTM B-496.
- STRAND SHIELD: Extruded semi-conducting compound.
- INSULATION: Flame resistant (90°C) Cross-Linked Polyethylene (XLP) ICEA S-75-381/ NEMA WC-58.
- INSULATION SHIELD: Extruded semi-conducting compound, bare copper tape (0.003") helically applied.
- COLOR CODE: Black, White, Red nylon tracer tape applied between the insulation semi-conductive layer and the copper tape shield.
- GROUND WIRES: Uninsulated, soft drawn, annealed, compact stranded, bare copper per ASTM B-496, B-8 and B-33.
- GROUND CHECK: Soft drawn, annealed, compact stranded, bare copper with yellow EPR insulation.
- CABLING: Three shielded conductors are assembled in a helical configuration with two
  uninsulated ground wires, one yellow insulated ground check and non-wicking fillers
  as needed. A woven nylon polyester reinforcement binder is served over the entire
  assembly for increased stability.
- REINFORCEMENT: A woven nylon polyester reinforcement binder is applied over the completed assembly for added core stability.
- JACKET: Black flame retardant (90°C) Polyvinyl Chloride (PVC) per ICEA S-75-381/ NEMA WC-58. Available in optional colors.













#### STANDARDS AND REFERENCES

- Meets or exceeds ICEA requirements as applicable for ICEA S-75-381/NEMA WC 58, ASTM B-3
- MSHA listed; passes MSHA flame test

- · Excellent resistance to oil, water, solvents, corrosives, sunlight, aging, cuts, tears and abrasions
- Resistant to most oils and chemicals, good cut, tear and abrasion resistance
- UL listed E-83541
- . MP-GC is suitable for all horizontal mine power distribution, messenger assisted high line transmission and direct burial in wet or dry locations requiring MSHA flame and/or UL approval listings
- Jacket will have permanent marking via indent printed legend



## RHINOPOWER™ TYPE MP-GC XLP-PVC 5-25 kV

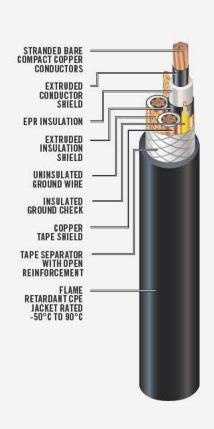
P0	WER CONDUC	TORS	GROUND	ING CONDS.	GROUND	NOM.	APPROX.	AMPACITY <sup>1</sup>
SIZE	STRANDS	INSULATION	SIZE	STRANDS	CHECK	0.D.	SHIP WT. lbs/1000 ft	40°C AMBIENT TEMP.
				5000 VOL	TS			
4	7	0.090	8	7	8	1.32	1195	122
2	7	0.090	6	7	8	1.45	1670	159
1	19	0.090	5	7	8	1.53	1890	184
1/0	19	0.090	4	7	8	1.63	2300	211
2/0	19	0.090	3	7	8	1.74	2850	243
4/0	19	0.090	1	19	8	2.00	3475	321
250	37	0.090	1/0	19	8	2.13	4620	355
350	37	0.090	2/0	19	8	2.35	5940	435
500	37	0.090	4/0	19	8	2.64	8165	536
				8000 VOL	TS			
4	7	0.115	8	7	8	1.43	1340	122
2	7	0.115	6	7	8	1.55	1760	159
1	19	0.115	5	7	8	1.65	2050	184
1/0	19	0.115	4	7	8	1.75	2450	211
2/0	19	0.115	3	7	8	1.88	3250	243
4/0	19	0.115	1	19	8	2.12	3754	321
250	37	0.115	1/0	19	8	2.25	4780	355
350	37	0.115	2/0	19	8	2.46	6190	435
500	37	0.115	4/0	19	8	2.75	8300	536

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table I-1 of ICEA S-75-381.

P0	WER CONDUC	TORS	GROUND	ING CONDS.	GROUND	NOM.	APPROX.	AMPACITY <sup>1</sup>
SIZE	STRANDS	INSULATION	SIZE	STRANDS	CHECK	O.D.	SHIP WT. lbs/1000 ft	40°C AMBIENT TEMP.
				15000 VOI	.TS			
2	7	0.175	6	7	8	1.88	1961	164
1	19	0.175	5	7	8	1.98	2460	187
1/0	19	0.175	4	7	8	2.05	2780	215
2/0	19	0.175	3	7	8	2.15	3023	246
4/0	19	0.175	1	19	8	2.40	4164	325
250	37	0.175	1/0	19	8	2.50	4990	359
350	37	0.175	2/0	19	8	2.75	6385	438
500	37	0.175	4/0	19	8	3.10	8553	536
				25000 VOL	_TS			
2	7	0.260	6	7	8	2.34	1760	168
1	19	0.260	5	7	8	2.42	2050	191
1/0	19	0.260	4	7	8	2.51	2450	218
2/0	19	0.260	3	7	8	2.60	3250	249
4/0	19	0.260	1	19	8	2.89	3754	326
250	37	0.260	1/0	19	8	2.99	4780	360
350	37	0.260	2/0	19	8	3.21	6190	439
500	37	0.260	4/0	19	8	3.50	8300	536

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table I-1 of ICEA S-75-381.

# RHINOPOWER™ TYPE MP-GC EPR-CPE 5-25 kV







### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

 Use in stationary horizontal HV mine power distribution circuits, for permanent or semi-portable applications with power transmission in deep mines, surface mines, open pits, tunnels, in conduit or duct (not to exceed max rated voltage), suitable for direct burial in wet or dry locations (max. conductor operating temp. in open-air 90°C).
 For vertical drop requirements consult with factory application specialist.

#### CONSTRUCTION

- CONDUCTORS: Bare, soft drawn, annealed copper per ASTM B-3, compact stranded per ASTM B-496.
- STRAND SHIELD: Extruded semi-conducting compound.
- INSULATION: HV grade, flame resistant, thermosetting (90°C) Ethylene Propylene Rubber (EPR) 100% insulation, ozone, oil, water, solvent, corrosive and abrasion resistant, per ICEA S-75-381/NEMA WC-58.
- INSULATION SHIELD: Extruded semi-conducting compound, bare copper tape helically applied.
- COLOR CODE: Black, White, Red via colored nylon tracer tape, applied between the insulation semi-conductive layer and the copper tape shield.
- GROUND WIRES: Uninsulated, soft drawn, annealed, stranded bare copper per ASTM B-496, B-8 and B-33.
- GROUND CHECK: Soft drawn, annealed, compact stranded, bare copper with a yellow EPR insulation.
- CABLING: Three shielded conductors are assembled round in a helical configuration
  with two uninsulated ground wires, one yellow insulated ground check and non-wicking
  fillers as needed. A woven nylon polyester reinforcement binder is served over the
  entire assembly. An additional woven reinforcement layer is served over the entire
  completed assembly for increased stability.
- REINFORCEMENT: A woven nylon polyester reinforcement binder is applied over the completed assembly for added core to jacket integrity.
- JACKET: Mold cured, heavy-duty, single layer flame resistant, thermosetting Chlorinated Polyethylene (CPE). Available in alternate colors and reflective stripes.

#### STANDARDS AND REFERENCES

- Meets or exceeds ICEA S-75-381/NEMA WC58 ASTM B-496, B-8 and B-3
- MSHA listed; passes MSHA flame test
- OSHA acceptable

- Excellent resistance to UV, ozone, aging, oil, water, solvent, corrosives, heat, cuts, tears and abrasions
- Jacket will have permanent marking via embossed printed legend





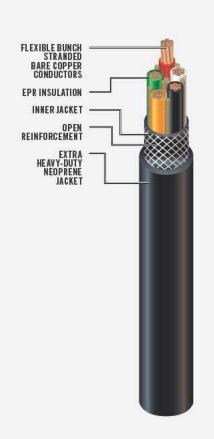


Р	OWER CONDUC	CTORS	GROUND	ING CONDS.	GROUND	NOM.	APPROX.	AMPACITY <sup>1</sup>
SIZE	STRANDS	INSULATION	SIZE	STRANDS	CHECK	O.D.	SHIP WT. Ibs/1000 ft	40°C AMBIENT TEMP.
		-		5000 VOL	TS			
4	7	0.090	8	7	8	1.32	1195	122
2	7	0.090	6	7	8	1.45	1670	159
1	19	0.090	5	7	8	1.53	1890	184
1/0	19	0.090	4	7	8	1.63	2300	211
2/0	19	0.090	3	7	8	1.74	2850	243
4/0	19	0.090	1	19	8	2.00	3475	321
250	37	0.090	1/0	19	8	2.13	4620	355
350	37	0.090	2/0	19	8	2.35	5940	435
500	37	0.090	4/0	19	8	2.64	8165	536
				8000 VOL	TS		1.0	
4	7	0.115	8	7	8	1.43	1340	122
2	7	0.115	6	7	8	1.55	1760	159
1	19	0.115	5	7	8	1.65	2050	184
1/0	19	0.115	4	7	8	1.75	2450	211
2/0	19	0.115	3	7	8	1.88	3250	243
4/0	19	0.115	1	19	8	2.12	3754	321
250	37	0.115	1/0	19	8	2.25	4780	355
350	37	0.115	2/0	19	8	2.46	6190	435
500	37	0.115	4/0	19	8	2.75	8300	536
	A			15000 VOI	_TS			
2	7	0.175	6	7	8	1.88	1961	164
1	19	0.175	5	7	8	1.98	2460	187
1/0	19	0.175	4	7	8	2.05	2780	215
2/0	19	0.175	3	7	8	2.15	3023	246
4/0	19	0.175	1	19	8	2.40	4164	325
250	37	0.175	1/0	19	8	2.50	4990	359
350	37	0.175	2/0	19	8	2.75	6385	438
500	37	0.175	4/0	19	8	3.10	8553	536
				25000 VOI	LTS			
2	7	0.260	6	7	8	2.34	168	168
1	19	0.260	5	7	8	2.42	191	191
1/0	19	0.260	4	7	8	2.51	218	218
2/0	19	0.260	3	7	8	2.60	249	249
4/0	19	0.260	1	19	8	2.89	326	326
250	37	0.260	1/0	19	8	2.99	360	360
350	37	0.260	2/0	19	8	3.21	439	439
500	37	0.260	4/0	19	8	3.50	536	536

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air, 90°C conductor temperature per Table I-1 of ICEA S-75-381.



# REMOTE POWER & DRILL CORD



#### **END VIEW**



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

 For use in stationary heavy-duty pumps or long wall lighting applications and designed for long service life in wet or dry locations in underground mines.

#### CONSTRUCTION

- COPPER CONDUCTORS: Flexible bunch stranded, uncoated annealed copper per ASTM B3/B174 and ICEA S-75-381. A separator tape is applied over the conductor.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: 90°C rated heat and moisture resistant EPR insulation per ICEA S-75-381 part 3 and UL requirements.
- COLOR CODE: 3-CONDUCTOR: Black, White, Green
  - 4-CONDUCTOR: Black, White, Red, Green
  - 5-CONDUCTOR: Black, White, Red, Green, Orange
  - 6-CONDUCTOR: Black, White, Red, Green, Orange, Blue
- CABLING: The conductors are cabled together with treated jute fillers as needed.
- JACKET: Dual-layer, heavy-duty, heat and abrasion resistant black neoprene per ICEA S-75-381. Reinforced yarn shall be applied as an open braid between the two layers.

#### STANDARDS AND REFERENCES

- MSHA listed: passes MSHA flame test
- RoHS compliant

- Sunlight resistant jacket
- Heavy-duty, crush and abrasion resistant
- Suitable for continuous submersion in shallow water









SIZE/NUMBER OF CONDS.	STRANDS	INS. WALL (mils)	NOM. JACKET WALL (mils)	DIAMETER (inch)	AMPS <sup>1</sup>	APPROX. SHIP WT. lbs/1000 ft
14/3	41	45	140	0.670 +/- 0.020	15	294
14/4	41	45	145	0.710 +/- 0.020	12	346
14/5	41	45	145	0.780 +/- 0.030	12	418
12/3	65	45	140	0.720 +/- 0.030	16	441
12/5	65	45	155	0.810 +/- 0.030	16	441
12/6	65	45	155	0.890 +/- 0.030	16	508
10/3	104	45	140	0.800 +/- 0.030	26	360
10/5	104	45	155	0.900 +/- 0.030	20	548
8/5	168	60	155	1.090 +/- 0.030	50	689

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient temperature in air. See ICEA S-75-381 Appendix H for correction factors if one or more layer are wound on a reel.

# INDUSTRIAL GRADE



#### **END VIEW**



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use in stationary, underground, or surface mining applications.
- For use with conveyors, drills and pumps, and other portable power applications where equipment grounding is required.
- Type G-GC can also be used where a ground check conductor is required for fail-safe. ground monitoring. Not designed for continuous reeling applications.

#### CONSTRUCTION

- CONDUCTORS: Bare, annealed copper per ASTM B-3 Flexible, rope-lay stranded.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded 90°C ozone, oil (60°C) and water resistant (90°C) synthetic rubber (EPDM).
- . COLOR CODE: Black, White, Red
- CABLING: Three conductors are assembled round in a helical configuration with two green insulated grounding conductors, one yellow insulated ground check and suitable fillers as needed.
- CABLE REINFORCEMENT: An open reinforcement is applied over the assembly for mechanical strength.
- JACKET: Hard usage, oil-resistant thermoset CPE jacket per UL-1581 for oil and sunlight resistance.

#### STANDARDS AND REFERENCES

- UL listed (file No. E83541)
- OSHA acceptable
- MSHA listed; passes MSHA flame test

- Excellent resistance to oil, solvent, ozone, aging and abrasion
- Sunlight resistant jacket
- Flame retardant jacket
- Free stripping insulation
- Suitable fillers
- Suitable for continuous submersion in shallow water









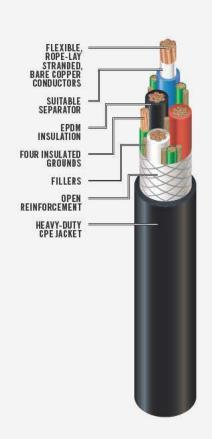




POW	VER CONDUCTO	RS	GR	OUNDING	CONDS.	GROUND CHECK		APPROX.	AMDCI	APPROX.
SIZE	STRANDS	INS.	NO.	SIZE	STRANDS	SIZE	INSULATION	O.D.	AMPS <sup>1</sup>	SHIP WT. lbs/1000 ft
					0-2000 VO	LTS				
8	71	0.060	2	10	104	10	104	0.950	59	637
6	65	0.060	2	10	104	10	104	1.000	79	744
4	133	0.060	2	8	71	8	71	1.115	104	1019
2	168	0.060	2	7	52	8	71	1.300	138	1436
1	224	0.080	2	6	273	8	71	1.490	161	1816
1/0	259	0.080	2	5	133	8	71	1.625	186	2184
2/0	324	0.080	2	4	133	8	71	1.740	215	2653
3/0	418	0.080	2	3	133	8	71	1.875	249	3166
4/0	532	0.080	2	2	168	8	71	1.990	287	3778
250	608	0.095	2	2	168	8	71	2.285	320	4744
350	855	0.095	2	1/0	273	8	71	2.615	394	6205
500	1221	0.095	2	2/0	324	8	71	2.960	487	8492

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient air temperature 90°C conductor temperature per ICEA S-75-381, Table H-1.

# INDUSTRIAL GRADE



#### **END VIEW**



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use in all stationary underground or surface mining applications.
- For use with conveyors, drills and pumps, and other portable power applications where equipment grounding is required. Not designed for continuous reeling applications.

#### CONSTRUCTION

- CONDUCTORS: Bare, annealed copper per ASTM B-3 Flexible, rope-lay stranded per UL-44.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded 90°C ozone, oil (60°C) and water resistant (90°C) synthetic rubber (EPDM) per UL-44.
- COLOR CODE: Black, White, Red, Blue (Orange on American Mustang®)
- · CABLING: Four conductors are assembled round in a helical configuration with four green insulated grounding conductors and suitable fillers as needed.
- · CABLE REINFORCEMENT: An open reinforcement is applied over the assembly for mechanical strength.
- JACKET: Hard usage, oil-resistant, thermoset CPE jacket per UL-1581 for oil and sunlight resistance.

#### STANDARDS AND REFERENCES

- UL listed (file No. E83541)
- OSHA acceptable
- MSHA listed; passes MSHA flame test

- Excellent resistance to oil, solvent, ozone, aging and abrasion
- Sunlight resistant jacket
- Flame retardant jacket
- Free stripping insulation
- Suitable fillers
- Suitable for continuous submersion in shallow water











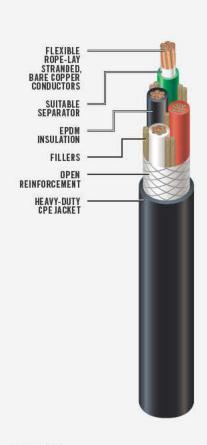


POW	POWER CONDUCTORS		GROUNDING CONDUCTORS			APPROX.	AMDC1	APPROX. SHIP WT.		
SIZE	STRANDS	INS.	NO.	SIZE	STRANDS	0.D.	AMPS <sup>1</sup>	lbs/1000 ft		
	4-CONDUCTOR, TYPE G, (INSULATED GROUNDS)									
8	71	0,060	4	12	65	1.080	59	717		
6	65	0.060	4	12	65	1.130	79	869		
4	133	0.060	4	10	104	1.180	104	1193		
2	168	0.060	4	9	49	1.440	138	1747		
1	224	0.080	4	8	71	1.620	161	2197		
1/0	273	0.080	4	7	52	1.730	186	2606		
2/0	324	0.080	4	6	273	1.900	215	3259		
3/0	418	0.080	4	5	133	2.040	249	3856		
4/0	532	0.080	4	4	133	2.180	287	4691		
250	608	0.095	4	3	133	2.770	320	6830		
350	855	0.095	4	2	168	3.100	394	8919		
500	1221	0.095	4	1/0	273	3.500	487	11899		

<sup>&</sup>lt;sup>1</sup>Ampacities are based on 40°C ambient air temperature 90°C conductor temperature per ICEA S-75-381 of Table H-1. If all four conductors carry current the ampacity is 80% of the above values.



# INDUSTRIAL GRADE



#### **END VIEW**



### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For use in all stationary underground or surface mining applications
- For use in conveyors, drills and pumps and as portable power and temporary power supply cables. Not designed for continuous reeling applications.

#### CONSTRUCTION

- CONDUCTORS: Bare, annealed copper per ASTM B-3 Flexible, rope-lay stranded per ASTM B-172.
- SEPARATOR: A separator tape is applied between the conductor and insulation to facilitate stripping.
- INSULATION: Color coded 90°C ozone, oil (60°C) and water resistant (90°C) synthetic rubber (EPDM) per UL-44.
- COLOR CODE: 3-CONDUCTOR: Black, White, Green
  - 4-CONDUCTOR: Black, White, Red, Green
  - 5-CONDUCTOR: Black, White, Red, Green, Orange
- · CABLING: Conductors are assembled round in a helical configuration with suitable fillers as needed.
- CABLE REINFORCEMENT: An open reinforcement is applied over the assembly for mechanical strength.
- JACKET: Hard usage, oil-resistant, thermoset CPE jacket per UL-1581 for oil and sunlight resistance.

#### STANDARDS AND REFERENCES

- OSHA acceptable
- MSHA listed; passes MSHA flame test

- Excellent resistance to oil, solvent, ozone, aging and abrasions
- Excellent flexibility
- Sunlight resistant jacket
- Flame retardant jacket
- Free stripping insulation
- Suitable fillers
- Suitable for continuous submersion in shallow water











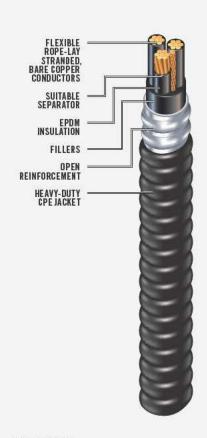


APPROX. O.D.  NDUCTOR  0.910  1.010  1.170  1.340  1.510  1.650	59 79 104 138 161	473 608 838 1196
0.910 1.010 1.170 1.340 1.510	79 104 138	608 838
1.010 1.170 1.340 1.510	79 104 138	608 838
1.170 1.340 1.510	104 138	838
1.340 1.510	138	
1.510		1196
	161	
1.650		1492
	186	1805
1.750	215	2118
1.890	249	2612
2.040	287	3076
2.390	320	3954
2.680	394	5179
3.030	487	7213
NDUCTOR		
0.990	54	573
1.100	72	781
1.270	93	1061
1.480	122	1540
1.680	143	1903
1.790	165	2288
1.930	192	2828
2.070	221	3308
2.260	255	3919
2.660	280	5353
2.980	335	6881
NDUCTOR		
1.070	50	647
1.210	68	924
1.400	88	1323
		1884
	2.390 2.680 3.030  NDUCTOR 0.990 1.100 1.270 1.480 1.680 1.790 1.930 2.070 2.260 2.660 2.980  NDUCTOR 1.070 1.210	2.390     320       2.680     394       3.030     487       NDUCTOR       0.990     54       1.100     72       1.270     93       1.480     122       1.680     143       1.790     165       1.930     192       2.070     221       2.260     255       2.660     280       2.980     335       NDUCTOR       1.070     50       1.210     68

 $^1$ Ampacities are based on isolated cable in open air, 40°C ambient air temperature and 90°C conductor temperature per ICEA S-75-381 of Table H-1. Use the 3/C ampacity values if only three conductors in a 4/C or 5/C cable are carrying current.



## CSA TECK 90 600 V CONTROL CABLE



END VIEW



#### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- · For exposed or concealed wiring in wet or dry locations.
- For use in ventilated, non-ventilated and ladder type cable troughs and ventilated flexible cableway in wet or dry locations.
- Cable is sunlight resistant.
- For direct earth burial.
- Typical applications are for power, lighting and control circuits in: pulp and paper mills, steel mills, food processing plants, commercial centers, mines, generating stations, refineries, industrial plants and chemical plants.

#### CONSTRUCTION

- · CONDUCTORS: Class B stranded, bare, soft copper.
- INSULATION: Cross-Linked Polyethylene (XLP) as approved by CSA on Types RW90 XLP -40°C per CSA C22.2, No. 131; LL90458.
- COLOR CODE: 2-CONDUCTOR: Black, White

3-CONDUCTOR: Red, Black, Blue

4-CONDUCTOR: Red, Black, Blue, White (more than 4/C numbered)

- GROUNDING CONDUCTOR: An uninsulated, Class B, stranded grounding conductor is included in the cable assembly.
- ASSEMBLY: Multiple conductor cables are assembled with suitable fillers and binder tape.
- INNER JACKET: Polyvinyl Chloride (PVC) heat, flame and moisture-resistant jacket, rated -40°C.
- · ARMOR: Aluminum interlocking armor.
- OVERALL JACKET: Polyvinyl Chloride (PVC) heat, flame and moisture-resistant
  jacket, rated 40°C. The standard color is black but colored jackets will be provided
  on request. Meets flame test in accordance with Ontario Hydro Spec. L-891 SM-77,
  meets flame test in IEEE 383 and FT-4 or better. Sunlight resistant.
- AMPACITY: Based on not more than three conductors in raceway or cable at an
  ambient temperature of 30°C per Table 2, Column 4 of the Canadian Electrical Code,
  these ampacities are also based on a minimum one cable O.D. spacing between
  adjacent cables, (for a four conductor cable the fourth conductor is considered to be
  the neutral of the three-phase, 4-wire-system).
- TEMPERATURE: -40°C to 90°C
- VOLTAGE: 600 Volts
- 5/15 kV Teck cable also available.

#### STANDARDS AND REFERENCES

Southwire's Teck 90 Control Cable meets CSA C22.2, No. 131

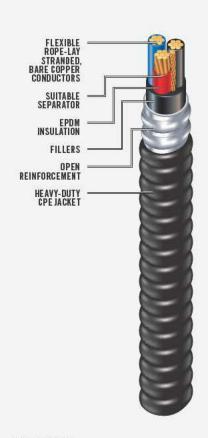




SIZE	NUMBER OF CONDUCTORS	GROUND WIRING	APPROX. DIAMETER INNER JACKET (inch)	APPROX. ARMOR DIAMETER (inch)	APPROX. DIAMETER OUTER JACKET (inch)	APPROX. SHIP WT. lbs/1000 ft
14	2	14	0.361	0.571	0.651	187
14	3	14	0.382	0.592	0.672	215
14	4	14	0.415	0.625	0.705	240
14	5	14	0.452	0.662	0.742	265
14	6	14	0.490	0.700	0.781	293
14	7	14	0.490	0.700	0.781	310
14	8	14	0.561	0.771	0.851	360
14	10	14	0.650	0.860	0.940	423
14	12	14	0.671	0.881	0.961	465
14	15	14	0.742	0.952	1.032	537
14	19	14	0.780	1.100	1.180	675
14	20	14	0.820	1.140	1.220	703
14	25	14	0.949	1.269	1.350	874
12	2	12	0.396	0.606	0.686	218
12	3	12	0.420	0,630	0.710	252
12	4	12	0.457	0.667	0.747	290
12	10	12	0.720	0.930	1.011	529
12	12	12	0.744	0.954	1.034	589
12	15	12	0.865	1.185	1.266	788
12	20	12	0.953	1.273	1.354	950
10	3	12	0.470	0,680	0.761	314
10	4	12	0.514	0.724	0.804	367



# CSA TECK 90 1000 V POWER CABLE



**END VIEW** 



#### **APPLICATIONS** SUITABLE FOR USE AS FOLLOWS:

- For exposed or concealed wiring in wet or dry locations.
- For use in ventilated, non-ventilated and ladder type cable troughs and ventilated flexible cableway in wet or dry locations.
- Cable is sunlight resistant.
- For direct earth burial.
- Typical applications are for power, lighting and control circuits in: pulp and paper mills, steel mills, food processing plants, commercial centers, mines, generating stations, refineries, industrial plants and chemical plants.

#### CONSTRUCTION

- CONDUCTORS: Class B stranded, bare, soft copper.
- INSULATION: Cross-Linked Polyethylene (XLP) as approved by CSA on Types RW90 XLP -40°C per CSA C22.2, No. 131; LL90458.
- COLOR CODE: 2-CONDUCTOR: Black, White 3-CONDUCTOR: Red, Black, Blue

  - 4-CONDUCTOR: Red, Black, Blue, White (more than 4/C numbered)
- GROUNDING CONDUCTOR: An uninsulated Class B stranded grounding conductor is included in the cable assembly.
- ASSEMBLY: Multiple conductor cables are assembled with suitable fillers and binder tape.
- INNER JACKET: Polyvinyl Chloride (PVC) heat, flame and moisture-resistant jacket, rated -40°C.
- ARMOR: Aluminum interlocking armor.
- · OVERALL JACKET: Polyvinyl Chloride (PVC) heat, flame and moisture-resistant jacket, rated 40°C, the standard color is black but colored jackets will be provided on request. Meets flame test in accordance with Ontario Hydro Spec. L-891 SM-77, meets flame test in IEEE 383 and FT-4 or better. Sunlight resistant.
- AMPACITY: Based on not more than three conductors in raceway or cable at an ambient temperature of 30°C per Table 2, Column 4 of the Canadian Electrical Code, these ampacities are also based on a minimum one cable O.D. spacing between adjacent cables, (for a four conductor cable the fourth conductor is considered to be the neutral of the three-phase, 4-wire-system).
- TEMPERATURE: -40°C to 90°C
- VOLTAGE: 1000 Volts
- 5/15 kV Teck cable also available.

#### STANDARDS AND REFERENCES

Southwire's Teck 90 Control Cable meets CSA C22.2, No. 131





SIZE	NUMBER OF CONDUCTORS	GROUND WIRING	APPROX. DIAMETER INNER JACKET (inch)	APPROX. ARMOR DIAMETER (inch)	APPROX. DIAMETER OUTER JACKET (inch)	APPROX. SHIP WT. lbs/1000 ft
8	3	10	0.627	0.837	0.917	466
8	4	10	0.685	0.895	0.975	553
6	3	8	0.768	1.088	1.168	707
6	4	8	0.883	1.203	1.283	888
4	3	8	0.907	1.227	1.308	958
4	4	8	0.994	1.314	1.394	1144
3	3	6	0.965	1.285	1.365	1140
3	4	6	1.058	1.378	1.458	1351
2	3	6	1.030	1.350	1.430	1305
2	4	6	1.131	1.451	1.531	1574
1	3	6	1,211	1.531	1.629	1642
1	4	6	1.333	1.653	1.751	2009
1/0	3	6	1,295	1.615	1.713	1913
1/0	4	6	1.427	1.747	1.845	2351
2/0	3	6	1.390	1,710	1.808	2255
2/0	4	6	1.533	1.863	1.962	2848
3/0	3	4	1.498	1.818	1.916	2695
3/0	4	4	1.654	1.984	2.082	3412
4/0	3	4	1.619	1.949	2.047	3268
4/0	4	4	1.849	2.179	2.277	4212
250	3	4	1.826	2.156	2.254	3885
250	4	4	2.013	2.343	2.464	4878
300	3	4	1.940	2.270	2.391	4509
300	4	4	2.141	2.471	2.592	5636
350	3	3	2.048	2.378	2.499	5119
350	4	3	2.262	2.592	2.712	6416
500	3	3	2.327	2.657	2.777	6802
500	4	3	2.573	2.903	3.024	8602







As Southwire broadens its mining cable offerings, we are proud to present Rhino Brand® Mining Cable with a Reflective Stripe. This is another step in our efforts to provide cables that improve safety, while at the same time, increase cable service life and productivity.

The striping is available on all round CPE jacketed material and comes in silver color.

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## NOTES

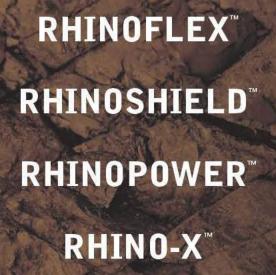
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