

Global Mining Cable

SOLUTIONS

SERVING
**Underground and Surface
Mining Operations**

Type W Cables

Type G Cables

Type G-GC Cables

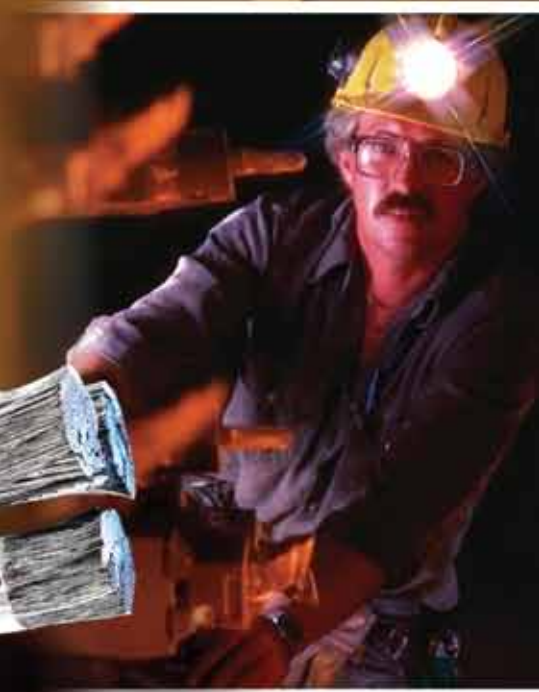
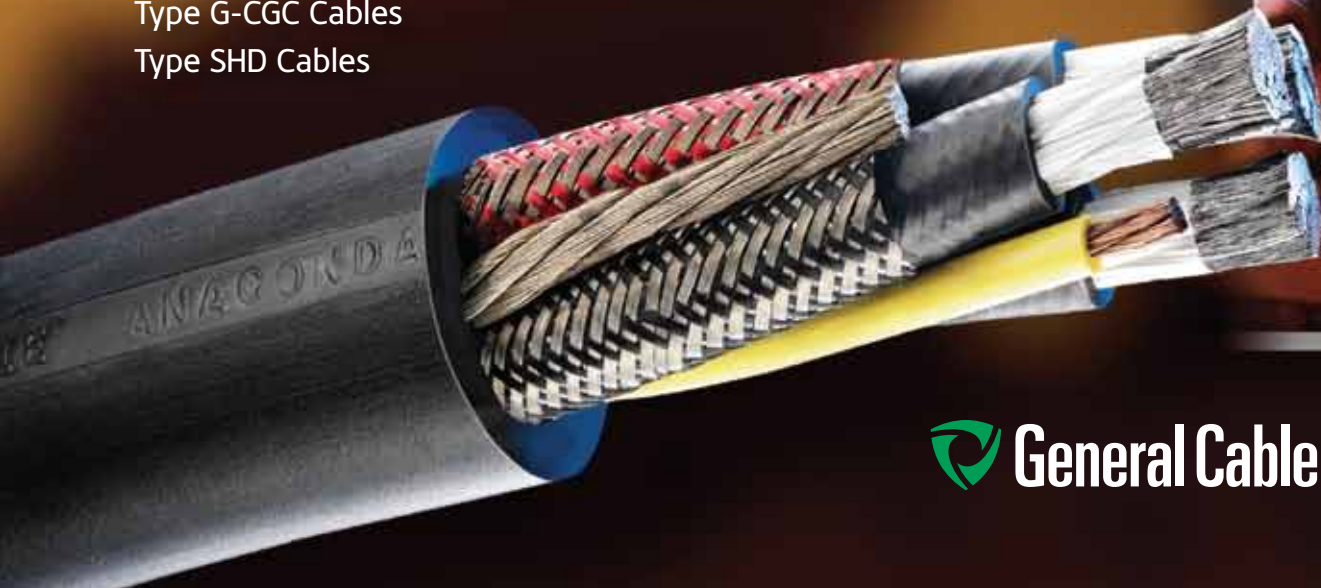
Type G-CGC Cables

Type SHD Cables

Type SHD-GC Cables

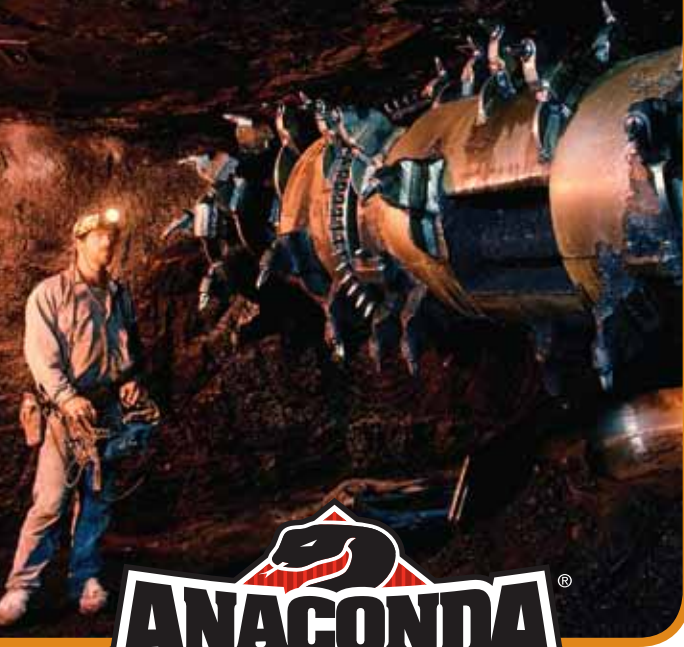
Type SHD-CGC Cables

Type MP-GC Cables



 **General Cable**

One Company
Connecting the World



As a Fortune 500 company with 13,000 associates globally and 55 manufacturing facilities operating in 26 countries around the world, **General Cable is positioned to meet mining needs with an industry-leading global product offering—whenever and wherever it's needed.**



In today's global underground and surface mining applications, ensuring continuous, reliable and safe flow of electricity to high-complexity mining machinery is critical for maintaining ongoing production and improving output. In the current competitive economic environment, every minute of mining downtime has a serious impact on profitability—reliability and performance of mining cables is essential. That's why global mining customers turn to the one name that stands alone—**Anaconda® Brand** mining cables from General Cable.

A True Legacy in Mining Cables

General Cable's roots reach down more than a century to the bedrock of the global mining industry. Pioneering advancements in mining cable designs and innovations have set the industry standard by which all others are measured. Manufactured in the same facility and to the same exacting specifications, **Anaconda® Brand** is the oldest active MSHA P-number and the leading name in the industry since 1929. Today's **Anaconda® Brand** mining cables continue to reduce downtime and ensure performance while meeting the most severe and extreme demands of the toughest mining applications.

Best Cable for Global Mining Applications — Above and Below the Surface

Whether it's modern surface mining applications, with their colossal scope, massive mining machines and growing shovel capacities, or the latest underground mining applications with higher output methods, **Anaconda® Brand** mining cables meet the increasing need to ensure continuous, reliable flow of power to modern mining machinery. Regardless of the application, General Cable provides the best-performance, best-fit, best-cost solution to meet the evolving needs of mining customers around the world.

General Cable's more than 80 years of experience in mining cable technology, improved design and construction, and the use of industry-proven materials and processes continue to provide benefits over the lifecycle of the cable, resulting in a **lower cost per ton**. **Anaconda® Brand** mining cables not only preserve the operational integrity of mission-critical equipment but also provide the ultimate protection against the toughest environment of global mining applications with superior jacket compounds and constructions.

Quality Assurance Guaranteed

General Cable combines years of R&D experience, manufacturing expertise and stringent testing by a qualified team of engineers and scientists to guarantee that every **Anaconda® Brand** cable meets and/or exceeds industry approvals and standards while providing the performance essential to low-cost mining. ISO 9001:2008 certified with ongoing quality assurance initiatives, General Cable ensures the quality of **Anaconda® Brand** product design, installation and expected service life, as well as respect for the environment through sustainable products, processes and policies.

- Specially designed conductors, insulations and jackets for any mining application
- Engineered to exceed ICEA, CAN/CSA and MSHA compliance
- In-house test lab simulates actual mine conditions with bending, flexing, tension, and abrasion testing
- Environmentally sound materials and production processes
- Long-term commitment to and investment in the mining industry

Anaconda® Brand—The Best Built Cable on the Market

Starting with jacketing materials that provide unsurpassed performance in the toughest applications and finishing with flexible conductors that extend conductor flex life and ensure superior performance, every cable bearing the **Anaconda® Brand** must live up to its name — the most trusted brand in the industry.

Superior Jackets

The First Line of Defense — The jackets of all **Anaconda® Brand** mining cables are compounded to withstand cutting, impact, flame, sunlight and corrosive mine water. They resist tearing, puncturing and distortion and retain flexibility over a wide range of temperatures. All **Anaconda® Brand** cables easily meet flame test requirements of MSHA, CSA and the Pennsylvania Department of Environmental Protection. A full range of colors is available for easy identification and enhanced visibility.

Reinforcement Braid Between the Jacket Layers

For Added Durability —The rugged, two-layer jacket on all round portable and trailing **Anaconda® Brand** cables is reinforced with a tough polyester twine. This increases not only the jacket's mechanical strength but also its tear resistance.

Grounding Conductors in Flat Cables*



A Better Design — Flat grounding conductors provide smaller overall cable diameters, more cable capacity on supply reels, and maximum crush resistance. This design provides maximum flexibility and superior fatigue resistance, as well as greater electrical protection to equipment and personnel.

Ground-Check Conductors*



For Maximum Safety — Because the resistance between mining equipment and earth is high, dangerous voltages may be present and create a shock hazard. To reduce this factor, ground fault currents are controlled by the use of resistance grounding. Ground-check conductors in **Anaconda® Brand** cables are insulated with high strength polypropylene (in all round constructions) to provide maximum reliability of the ground-check circuit.

Copper/Textile Shield Design*



A Critical Advantage — A copper/textile braid shield is used for the insulation shield on high-voltage portable cables. This virtually eliminates the possibility of phase-to-phase faults, reducing shock hazards to people and property. Its special design facilitates splicing and enhances its resistance to fatigue failure.

EPR Insulation

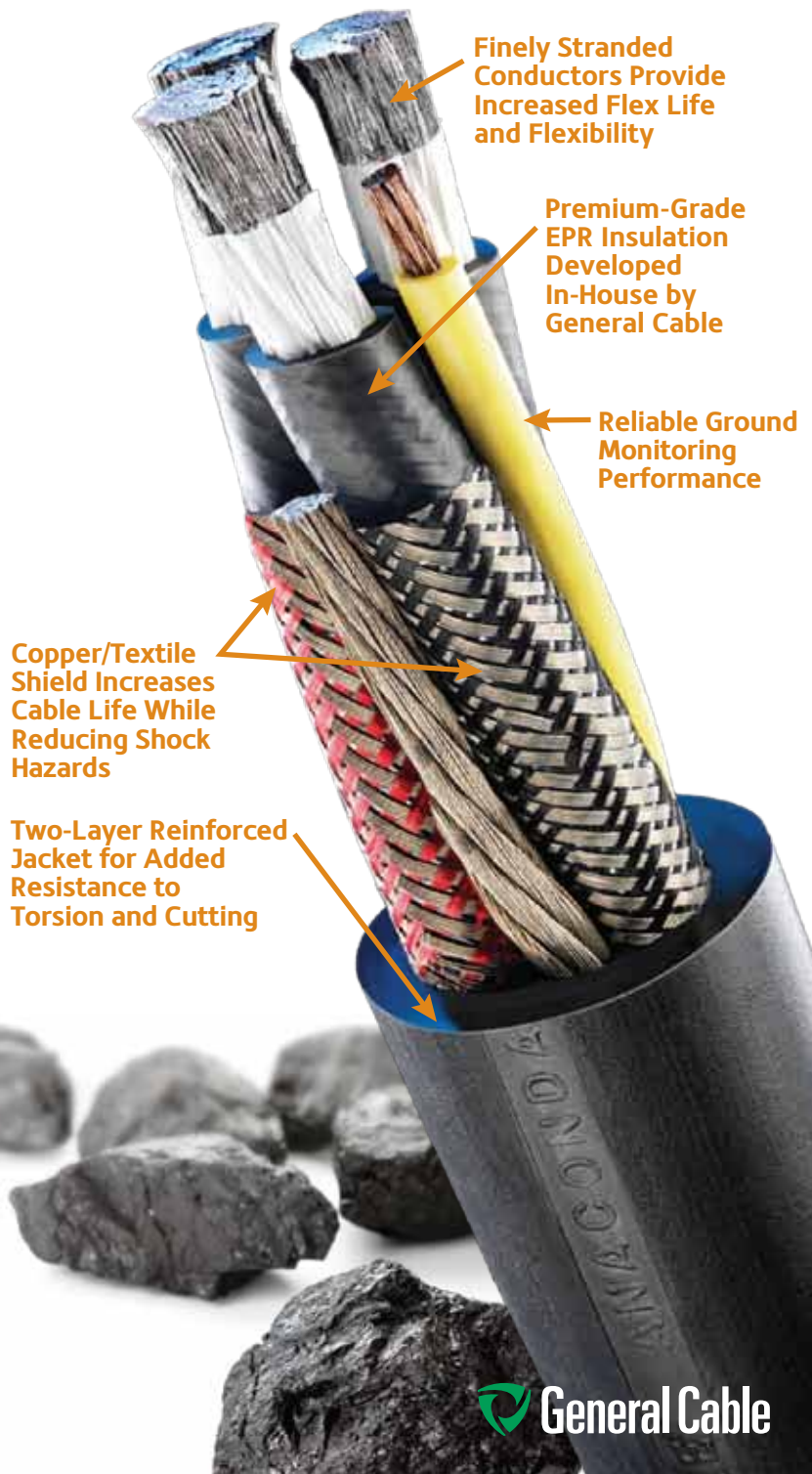
Because Only the Best Will Do — Field-proven to meet diverse mining application needs, General Cable's Type II EPR insulating compound provides greater physical protection against damage caused by crushing and run-overs common in shuttle car applications. Our high-voltage EPR insulation, with its combination of superior mechanical and electrical characteristics, withstands ozone, heat and moisture. The D-shaped insulation utilized on flat constructions minimizes kinking by preventing the conductors from turning inside the jacket.

Flexible Conductors

Designed for Superior Performance — Designed with a proven, optimal combination of wire size, as well as lay length and geometric arrangement, the conductors provide unmatched resistance to damage from bending, twisting and impact. This eases handling, saves space and speeds installation time. Strict quality control throughout our integrated manufacturing process extends conductor flex life and ensures superior performance.



**Originally engineered for Anaconda® Brand cables and now an industry standard*



Finely Stranded Conductors Provide Increased Flex Life and Flexibility

Premium-Grade EPR Insulation Developed In-House by General Cable

Reliable Ground Monitoring Performance

Copper/Textile Shield Increases Cable Life While Reducing Shock Hazards

Two-Layer Reinforced Jacket for Added Resistance to Torsion and Cutting



The industry standard for toughness, flexibility and extremely long life. Any other cable will cost you more.

Anaconda® Brand Mining Cable Application Guide

Flat mining-grade cables are constructed with an extra-heavy-duty jacket which provides mechanical protection and increased resistance to crushing, abrasion, cutting and tear. The D-shaped insulation utilized on flat constructions minimizes kinking by preventing the conductors from shifting inside the jacket.

Construction	Type	Applications	Flexibility	Bend Radius ¹	Features & Benefits
Flat	W	Portable Power, AC & DC Shuttle Cars, Welding Equipment	Excellent	6 x MD	<ul style="list-style-type: none"> - Simple construction and equal-sized conductors provide increased mechanical strength - Green insulated conductor can be used as ground or an additional conductor in DC applications
	G	Battery Chargers, DC Shuttle Cars, Portable Power	Excellent	6 x MD	<ul style="list-style-type: none"> - Simple construction provides increased mechanical strength
	G-GC	Roof Bolters, AC Shuttle Cars	Excellent	6 x MD	<ul style="list-style-type: none"> - Ground-check conductor provides increased electrical safety
	SHD	Continuous Miner	Good	8 x MD	<ul style="list-style-type: none"> - Covered copper/textile braid shield provides shock hazard protection, phase identification, reduced EMI and increased flex life - Semi-conducting covering over grounds provides a more solid construction while providing electrical safety

Round mining-grade cables are easier to handle, move and relocate. Their extra-heavy-duty two-layer jacket provides mechanical protection and increased resistance to abrasion, cutting, tear and torsion.

Round	W	Pumps, Shuttle Cars	Excellent	6 x OD	<ul style="list-style-type: none"> - Simple construction and equal-sized conductors provide increased mechanical strength - Green insulated conductor can be used as ground or an additional conductor in DC applications
	G-GC	Belt Drives, Bridge Conveyors, Pumps, Roof Bolters, Shuttle Cars, Loaders	Excellent	6 x OD	<ul style="list-style-type: none"> - Ground-check conductor provides increased electrical safety - High-strength polypropylene increases flex life of the ground-check conductor
	G-CGC	Belt Drives, Bridge Conveyors, Pumps, Roof Bolters, Shuttle Cars, Loaders	Excellent	6 x OD	<ul style="list-style-type: none"> - Ground-check conductor provides increased electrical safety - High-strength polypropylene increases flex life of the ground-check conductor - Extensible ground-check conductor construction increases flex life - Symmetrical construction minimizes induced current in grounds
	SHD-GC	Continuous Miners, Draglines, Longwall Equipment, Power Distribution, Pumps, Roof Bolters, Shovels, Shuttle Cars	Good	6 x OD ≤ 5 kV 8 x OD > 5 kV	<ul style="list-style-type: none"> - Covered copper/textile braid shield provides shock hazard protection, phase identification, reduced EMI and increased flex life - Ground-check conductor provides increased electrical safety - High-strength polypropylene increases flex life of the ground-check
	SHD-CGC	Continuous Miners, Draglines, Longwall Equipment, Power Distribution, Pumps, Roof Bolters, Shovels, Shuttle Cars	Good	6 x OD ≤ 5 kV 8 x OD > 5 kV	<ul style="list-style-type: none"> - Covered copper/textile braid shield provides shock hazard protection, phase identification, reduced EMI and increased flex life - Ground-check conductor provides increased electrical safety - High-strength polypropylene increases flex life of the ground-check - Extensible ground-check conductor construction increases flex life - Symmetrical construction minimizes induced current in grounds
	MP-GC	Power Distribution	Limited	12 x OD	<ul style="list-style-type: none"> - Copper tape shield provides increased electrical protection - Cost-effective solution when application involves limited flexing/relocation - Ground-check conductor provides increased electrical safety - High-strength polypropylene increases flex life of the ground-check conductor

MD: Minor Dimension of Cable

OD: Outer Diameter of Cable

¹ Per ICEA, CSA standards differ only in specifying an 8 x OD or MD bend radius for all SHD, SHD-GC and SHD-CGC cables.



Center of Manufacturing Excellence

General Cable's Marion Plant in Marion, Indiana has been manufacturing **Anaconda® Brand** cables since 1929. Over the years, millions of dollars have been invested in the expansion and modernization of the plant, as well as state-of-the art manufacturing equipment and processes.

- ISO 9001:2008 certified for quality
- In-house dedicated mining test lab
- Comprehensive engineering expertise and product management
- LeanSigma manufacturing program
- Supply chain and inventory support
- More than 850,000 sq. ft. of manufacturing space
- Dedicated inside and outside sales teams

Portable & Trailing Cables	
Type W Flat	2 kV
Type G Flat	2 kV
Type G-GC Flat	2 kV
Type SHD Flat	2 kV
Type W Round	2 kV
Type G-GC Round	2 kV
Type G-CGC Round	2 kV
Type SHD-GC Round	2, 5, 8, 15 & 25 kV
Type SHD-CGC Round	2 & 5 kV
Mine Power Feeder	
Type MP-GC (XLPE/PVC)	8 & 15 kV
Type MP-GC (EPR/CPE)	5, 8, 15 & 25 kV



GLOBAL REACH

General Cable serves customers through a global network of 55 manufacturing facilities in 26 countries and sales representatives and distribution centers worldwide. The Company is solely dedicated to the production of high-quality energy, industrial, specialty and communications wire and cable products. In addition to its breadth of product line and strong brand recognition, the Company offers competitive strengths in such areas as technology, manufacturing, distribution and logistics, and sales and customer service. This combination enables General Cable to better serve its customers as they expand into new geographic markets.



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