MINING CABLES
a proven, rugged product for harsh environments
MINING CABLES for Harsh and Industrial Applications

Utilizing Prysmian Jacketing Technology

Prysmian mining cables are designed and manufactured for use on mining equipment where flame, abrasion, chemicals, moisture, impact, tearing and temperature extremes are part of the work environment. These cables are manufactured to resist harsh environments without compromising safety.

FEATURES

Wherever there are unique or demanding requirements, Prysmian and Draka engineered cables are relied upon to deliver power and control in applications ranging from high atop seaport cranes to deep within mines.

For decades, industries have relied on us for high-quality wire and cable solutions. Our innovative designs and custom-engineered materials provide for longer cable life, resulting in reduced downtime, increased production and substantially lowered costs.

We serve an extensive range of markets with a competitive array of durable and dependable wire and cable products for virtually any industrial application.

- Engineered cable solutions for demanding environments including severe duty flexing and torsional stress
- Heavy duty, robust cable that resists abrasion, chemical solvents, oil, flame and moisture
- UL and CSA rated power and control cables

Certifications, Listings & Approvals

- Our cables meet and exceed the appropriate ICEA standard for power, control and fiber cables

International Commitment to Quality -- ISO-9000:2000

The quality management systems of our manufacturing facilities have been independently audited and certified to conform to the quality requirements set forth in ISO-9000:2000. Our deep commitment to deliver quality products and services and our dedication to continually improve our practices are embodied in these certifications.

Mining Cable Experience - Worldwide

Prysmian has developed extensive know-how over many years about the special operational conditions of underground mining. The high operational reliability and service life of Prysmian’s reeling and trailing cables for mining is based on this experience. Our cables can offer significant benefits to a broad variety of specialized mining professionals such as OEMs, specifiers, contractors, installers, mining companies and more.
MINING CABLES for Harsh and Industrial Applications

Utilizing Prysmian Jacketing Technology

Prysmian mining cables are designed and manufactured for use on mining equipment where flame, abrasion, chemicals, moisture, impact, tearing and temperature extremes are part of the work environment. These cables are manufactured to resist harsh environments without compromising safety.

FEATURES

Wherever there are unique or demanding requirements, Prysmian and Draka engineered cables are relied upon to deliver power and control in applications ranging from high atop seaport cranes to deep within mines. For decades, industries have relied on us for high-quality wire and cable solutions. Our innovative designs and custom-engineered materials provide for longer cable life, resulting in reduced down-time, increased production and substantially lowered costs.

We serve an extensive range of markets with a competitive array of durable and dependable wire and cable products for virtually any industrial application.

- Engineered cable solutions for demanding environments including severe duty flexing and torsional stress
- Heavy duty, robust cable that resists abrasion, chemical solvents, oil, flame and moisture
- UL and CSA rated power and control cables

Certifications, Listings & Approvals

- Our cables meet and exceed the appropriate ICEA standard for power, control and fiber cables

International Commitment to Quality -- ISO-9000:2000

The quality management systems of our manufacturing facilities have been independently audited and certified to conform to the quality requirements set forth in ISO-9000:2000. Our deep commitment to deliver quality products and services and our dedication to continually improve our practices are embodied in these certifications.

Mining Cable Experience - Worldwide

Prysmian has developed extensive know-how over many years about the special operational conditions of underground mining. The high operational reliability and service life of Prysmian's reeling and trailing cables for mining is based on this experience. Our cables can offer significant benefits to a broad variety of specialized mining professionals such as OEMs, specifiers, contractors, installers, mining companies and more.

Teck Cables for Mining

Low Voltage Teck (Multi-Conductor) Construction

CONDUCTORS: Class B Stranded Bare Copper
INSULATION: XLPE Insulation Rated 600v / 1kV per CSA
GROUND/BOND WIRES: Class B Stranded Bare Copper Sized per CSA
ARMOR: Aluminum or Galvanized Interlocked Armor
INNER JACKET: Sunlight Resistant PVC Jacket
OUTER JACKET: Low Temperature, Sunlight Resistant PVC Jacket
RATING: CSA
VOLTAGE RATING: 1kV
SIZES: Up to 50/C #14 - 1000kcmil

Low Voltage Teck (Single Conductor) Construction

CONDUCTORS: Class B Stranded Bare Copper
INSULATION: XLPE Insulation Rated 1kV per CSA
BOND WIRE: Helically Applied Bare Copper Wires with overall binder tape
ARMOR: Aluminum Interlock
INNER JACKET: Sunlight Resistant PVC Jacket
OUTER JACKET: Low Temperature, Sunlight Resistant PVC Jacket
RATING: CSA
VOLTAGE RATING: 1kV
SIZES: #6 to 1000kcmil

Medium Voltage Teck (Multi-Conductor) Construction

CONDUCTORS: Class B stranded Bare Copper
INSULATION: XLPE Insulation Rated 1kV per CSA
GROUND/BOND WIRE: Class B stranded Bare Copper sized per CSA
ELECTRICAL FIELD CONTROL: Extruded Thermoset Semiconducting Shields with controlled adhesion on the outer layer
METALLIC SHIELD: BC Tape applied with a maximum 15% Gap
LAY-UP: 3 Phase Conductors cabled with ground/bond wire and fillers as required
ARMOR: Aluminum Interlock or Galvanized Steel Interlock Armor
INNER JACKET: Sunlight Resistant PVC Jacket
OUTER JACKET: Low Temperature, Sunlight Resistant PVC Jacket
RATING: CSA, FT-4, HL
VOLTAGE RATING: 5-35kV shielded; 5kV non-shielded; & Risertek
SIZES: #6 to 1000kcmil, (depending on voltage)
Mold Cured Mining Cables

Type with Round or Flat Construction

CONDUCTORS: Flexible tinned copper
INSULATION: 90°C EPR applications.
JACKET: Reinforced extra heavy duty mold cured jacket with permanent markings.
RATINGS: ICEA S-75-381, UL 1650, MSHA, CSA 96, FT5
VOLTAGE RATING: 2kV
SIZES: 1/C #8 - 1000 kcmil, 2/C, 3/C or 4/C #8 - 500 kcmil
1/C or 3/C #6 - 4/0 (Flat)

Type G Round or Flat Construction

CONDUCTORS: Flexible tinned copper
INSULATION: 90°C EPR applications.
JACKET: Reinforced extra heavy duty mold cured jacket with permanent markings.
RATINGS: ICEA S-75-381, UL 1650, MSHA, CSA 96, FT5
VOLTAGE RATING: 2kV
SIZES: 2/C, 3/C & 4/C #8 - 500 kcmil
2/C & 3/C #6 - 4/0 (Flat)

Type SOW Construction

CONDUCTORS: Flexible tinned copper
INSULATION: 90°C EPDM
JACKET: Reinforced heavy duty mold cured jacket.
RATINGS: ICEA S-75-381, UL 62, MSHA, CSA 49, FT5
VOLTAGE RATING: 600V
SIZES: 3/C & 4/C #8 - 4/0
1/C #8 - 1000 kcmil

Type SHD-GC 2kV Construction

CONDUCTORS: Flexible tinned copper
GROUND CHECK: Flexible tinned copper with yellow PP insulation.
GROUND WIRES: Two flexible tinned copper
INSULATION: 90°C EPR applications.
SHIELD: Tinned copper braided shield
JACKET: Reinforced extra heavy duty mold cured jacket with permanent markings.
RATINGS: ICEA S-75-381, MSHA, CSA 96, FT5
VOLTAGE RATING: 2kV
SIZES: #14 to 500 kcmil

Type SHD-GC Medium Voltage

CONDUCTORS: Flexible Tinned Copper
GROUND WIRES: Two Flexible Tinned Copper
INSULATION: 90°C EPR Applications
SHIELD: Tinned Copper Braided Shield
JACKET: Reinforced extra heavy duty mold cured jacket with permanent markings.
RATING: 1kV
VOLTAGE RATING: 1kV
SIZES: #6 to 1000 kcmil

Type G-GC 2kV Construction

CONDUCTORS: Flexible Tinned Topper
GROUND CHECK: Flexible Tinned Copper with Yellow PP Insulation.
GROUND WIRES: Two flexible tinned copper
INSULATION: 90°C EPR applications.
JACKET: Reinforced Extra Heavy Duty cured jacket with permanent markings
RATINGS: ICEA S-75-381, UL 1650, MSHA, CSA 96, FT5
VOLTAGE RATING: 2kV
SIZES: #8 - 500 kcmil or #6 - #1 AWG (Flat)
Mold Cured Mining Cables

Mine Power Feeder Cables

Airguard™ Construction

CONDUCTORS: Class B Stranded Bare Copper
GROUND WIRES: 3/C BC per UL or 2/C BC with 1/C GC for MPF
INSULATION: 105°C EPR applications
ELECTRICAL FIELD CONTROL: Extruded Thermoset Semiconducting Shields with Controlled Adhesion on the Outer Layer
LAY-UP: 3/C Phase Conductors cabled with ground wires, rip cords and extruded EP filler
ARMOR: Polymeric Armor Layer
DRYLAM LAYER: Composite Layer Longitudinally Applied and Sealed Al Tape with Chemical Resistant Polymeric Layer
JACKET: PVC or LS0H
RATING: MSHA or CSA MPF or MPF-GC
VOLTAGE RATING: 5kV - 35kV
SIZES: #4 to 1000 kcmil

EP/CPE Construction

CONDUCTORS: Class B Stranded Bare Copper
GROUND WIRES: 2/C BC with 1/C GC per ICEA for MPF
INSULATION: 105°C EPR applications
ELECTRICAL FIELD CONTROL: Extruded Thermoset Semiconducting Shields with Controlled Adhesion on the Outer Layer
LAY-UP: 3/C Phase Conductors cabled with ground wires, fillers and an overall core tape
ARMOR: Polymeric Layer
JACKET: Cured Extra Heavy Duty Mold Jacket
RATING: MSHA or CSA MPF or MPF-GC
VOLTAGE RATING: 5kV - 35kV
SIZES: #2 to 1000 kcmil (depending on voltage)

XLPE/PVC Construction

CONDUCTORS: Class B Stranded Bare Copper
GROUND WIRES: 2/C BC with 1/C GC per ICEA for MPF
INSULATION: 90°C XLP Applications
LAY-UP: 3/C Phase Conductors cabled with ground wires, fillers & an overall core
JACKET: Heavy PVC Duty Jacket
RATING: MSHA or CSA MPF-GC
VOLTAGE RATING: 5kV - 35kV
SIZES: #2 to 1000 kcmil (depending on voltage)
Shaft/Borehole Cables

*Airguard™ Shaft Construction*

- **CONDUCTORS:** Class B Stranded Bare Copper
- **GROUND WIRES:** 3/C BC per UL or 2/C BC with 1/C GC for MPF
- **INSULATION:** 105°C EPR applications
- **ELECTRICAL FIELD CONTROL:** Extruded Thermoset Semiconducting Shields with Controlled Adhesion on the Outer Layer
- **LAY-UP:** 3/C Phase Conductors cabled with ground wires, rip cords and extruded EP filler
- **ARMOR:** Polymeric Armor Layer (AirBag™)
- **DRYLAM LAYER:** Composite Layer Longitudinally applied and sealed AL tape with chemical resistant polymeric layer
- **JACKET:** PVC or LSOH
- **RATING:** MSHA or CSA MPF-GC
- **VOLTAGE RATING:** 5kV - 35kV
- **SIZES:** #2 to 1000 kcmil

*Communication Riser Cable Construction*

- **CONDUCTORS:** Class B Stranded Bare Copper and/or SM Fiber
- **GROUND WIRES:** 2/C BC with 1/C GC per ICEA for MPF
- **INSULATION:** 600v/1kV XLP Insulation and Loose Tube Fiber
- **LAY-UP:** Up to 50 circuit size conductors and SM fiber cables with extruded EP filler
- **ARMOR:** Polymeric Armor Layer (AirBag™)
- **DRYLAM LAYER:** Composite Layer Longitudinally applied and sealed AL tape with chemical resistant polymeric layer
- **JACKET:** PVC
- **RATING:** MSHA or CSA MPF-GC
- **VOLTAGE RATING:** 5kV - 35kV
- **SIZES:** #2 to 1000 kcmil (depending on voltage)
Fiber Optic Cables for Mining

**RLTM Series – Loose Tube Heavy Duty Cable**

- **FLAME RATING:** Riser (OFNR /FT4) / MSHA
- **JACKET MATERIAL:** Flame Retardant Polyvinyl Chloride
- **FIBER COUNT:** 2 to 144
- **FIBER TYPE:** Single-Mode (ESMF, Bend-Insensitive) Multimode (62.5/125-OM1, 50/125-OM2+, OM3, OM4)

**S816 Series – Tight Buffer Breakout Cable**

- **FLAME RATING:** Riser (OFNR /FT4) / MSHA
- **JACKET MATERIAL:** Flame Retardant Polyvinyl Chloride
- **FIBER COUNT:** 2 to 36
- **FIBER TYPE:** Single-Mode (ESMF, Bend-Insensitive) Multimode (62.5/125-OM1, 50/125-OM2+, OM3, OM4)

**S946 Series – Tight Buffer Pressure Extruded Breakout Cable**

- **FLAME RATING:** Riser (OFNR /FT4) / MSHA
- **JACKET MATERIAL:** Flame Retardant Polyvinyl Chloride
- **FIBER COUNT:** 2 to 36
- **FIBER TYPE:** Single-Mode (ESMF, Bend-Insensitive) Multimode (62.5/125-OM1, 50/125-OM2+, OM3, OM4)

**S835 Series – Tight Buffer Pressure Extruded Rugged Polyurethane Cable**

- **FLAME RATING:** MSHA
- **JACKET MATERIAL:** Flame Retardant Polyvinyl Chloride
- **FIBER COUNT:** 2 to 12
- **FIBER TYPE:** Single-Mode (ESMF, Bend-Insensitive) Multimode (62.5/125-OM1, 50/125-OM2+, OM3, OM4)
### Cable Applications at a Glance

**North American Designs**

- **Bostrad**
  - Excavator reading cables
  - Type SHD/OHSH-DC
  - For continuous use in water
  - Type SHD / SHD-DC
  - For trailing operations
  - Type SHD / SHD-DC
  - Medium voltage flexible cables for fixed installations
  - Type RH
  - Single core medium voltage cable
  - Type W / Type G-DC / Type G / BIL
  - Low voltage power and control cables
  - n/a

- **Fibercord - RTLM, SL16, S946, S835 Series**
  - Heavy duty sheathed flexible fiberoptic cables

**European Designs**

- **Protelon (M)-1**
  - Excavator reading cables

- **Protelon (S)**
  - For continuous use in water

- **Protolon (SB) BS 6708 (Type 521-321-621) - BS 6176 (Type 521-621)**
  - For trailing operations

- **Protolon (M)-1 BS 6708 (Type 521-321-631) - BS 6176 (Type 521-621)**
  - Medium voltage flexible cables for fixed installations

- **Protolon 1 Core Cables**
  - Single core medium voltage cables
  - Protelomat (M) BCS 295 (Type 600/1000V) - BS 6708 (Type 683-64-64-321)
  - Low voltage power and control cables

- **Protolon (M) MSR - BS 6708 (Type 563-512-518-529)**
  - Data, signal and control cables for mining installations

- **Optoflex (M)**
  - Heavy duty sheathed flexible fiber optic cables

**Type SHD-CCC / SHD-PCG**

- Coal cutter cables for free trailing

- **Teck LV / Type W / 5OW**
  - Low voltage power and control cables

- **Type MP / Type MP-CCC / Airguard / Teck MV**
  - Medium voltage flexible cables for fixed installations

- **Type MP / Type MP-CCC with Metal Clad**
  - Special cables for single point

- **Type W / Type G (Round and Flat)**
  - Low voltage reeling cables for scoops and jumbos

- **Fibercord - RTLM, SL16, S946, S835 Series**
  - Heavy duty sheathed flexible fiberoptic cables

**Protolomat (Z)**

- BS 6708 (Type 11-7-941-75-307-307A-307B)
  - Coal cutter cables for free trailing

- **Protolomat (V) BS 6708 (Type 11-7-941-75-307-307A-307B)**
  - Coal cutter cables for chain operations

- **Protolomat HD Sheathed BS 6708 (Type 321-331-631)**
  - Low voltage power and control cables

- **Supramat BS 6708 (Type 321-331-631)**
  - Medium voltage flexible cables for fixed installations

- **Protolomat / BSC or BCS**
  - Special cables for single point

- **Cordaflex (S) BS 6708 (Type 1)**
  - Low voltage reeling cables for scoops and jumbos

- **Protolon (M) MSR BS 6708 (Type 106-512-518-520)**
  - Data, signal and control cables for mining installations

- **Protolon (M) MSR BS 6708 (Type 106-512-518-520)**
  - Data, signal and control cables for mining installations

- **Optoflex (M)**
  - Rubber sheathed flexible fiber optic cables

*Stongly Recommended, Suitable, Not Suitable*
As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

With this in mind, we provide major global organizations in many industries with best-in-class cable solutions, based on state-of-the-art technology. Through two renowned commercial brands – Prysmian and Draka – based in almost 100 countries, we’re constantly close to our customers, enabling them to further develop the world’s energy & telecom infrastructures, and achieve sustainable, profitable growth.

In our energy business, we design, produce, distribute, install cables and systems for the transmission/distribution of power at low, medium, high and extra-high voltage.

In telecoms, the Group is a leading manufacturer of all types of copper and fiber cables, systems and accessories – covering voice, video and data transmission.

Drawing on over 130 years’ experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the precise needs of our customers across all continents, at the same time shaping the evolution of our industry.