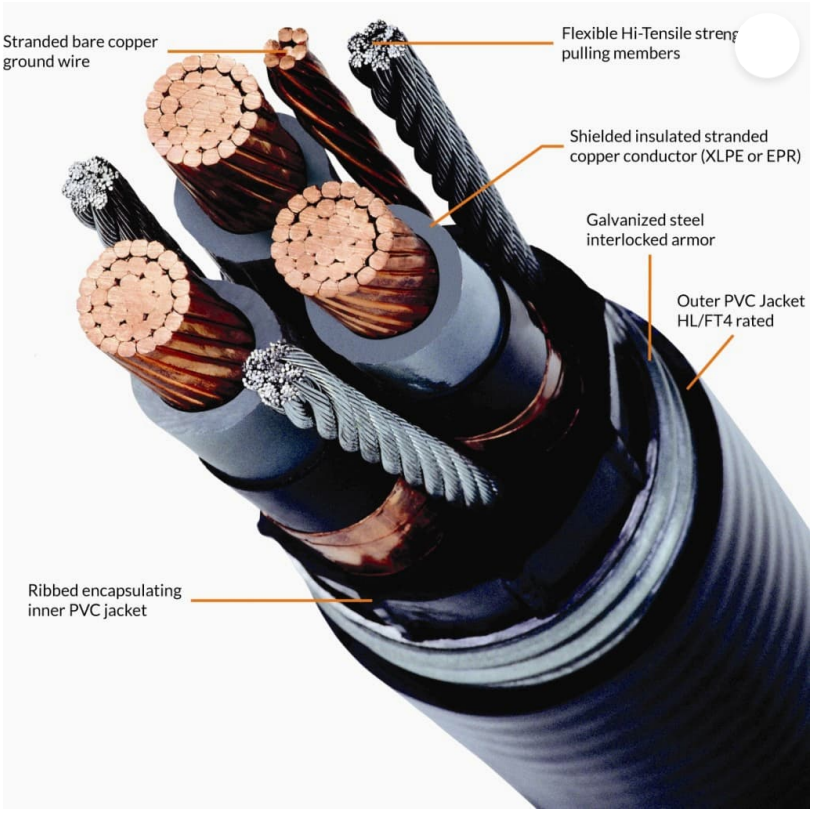
United Wire & Cable

Request Quote

HI-TENSILE VERLOK® VERTICAL MINESHAFT/BOREHOLE CABLE



Hi-Tensile Verlok® Vertical Mineshaft/Borehole Cable provides a unique and superior alternative to all other vertical riser cables, including steel wire armour (SWA).

Hi-Tensile Verlok® cables feature a totally encapsulating patented design with built-in, high-tensile strength pulling members. With this revolutionary integrated design, the built-in high-tensile pulling members take the mechanical strain – not the electrical conductors. That means greater safety and longer cable life.

The completely locked-in unified construction of the Hi-Tensile Verlok® Vertical Mineshaft/Borehole Cable also results in virtually no internal component slippage.

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other critical problems associated with short to long vertical self-support installations such as birdcaging of wires, poor hoop strength, [illegible] cracking. Moreover, the Hi-Tensile Verlok® core encapsulating ribbed inner jacket, embedded steel interlocked armor, and uniquely extruded outer jacket provide the ultimate in mechanical cable protection, stability and flexibility. Hi-Tensile Verlok® can use standard interlocked armor cable connectors; simplifying armor connection.

Hi-Tensile Verlok® Vertical Mineshaft/Borehole Cable provides power, control, and communication transmission capability in ratings up to 46,000V and in vertical self-support lengths beyond 2000 feet (600m).

For each application, the cable is custom-designed to meet your specific needs. It is manufactured according to the highest quality standards. Since its inception, **Hi-Tensile Verlok®** has been successfully utilized by progressive companies throughout Canada and the United States and is rapidly becoming the new standard.

Outstanding Advantages of Hi-Tensile Verlok®

- Longer allowable vertical and horizontal pulls
- Easier to install due to torque balanced design
- Eliminates cable inner core slippage
- Standard interlocked armour cable connectors
- Greater hoop and impact strength
- Designed to industry safety standards
- No armour birdcaging
- Standard interlocked armour cable connectors simplify armour connections
- Encapsulated cable core minimizes any possible fluid migration
- MSHA and CSA approved (HL/FT4)

Hi-Tensile Verlok® Safety Features

- Meets the Safety Factor requirements of ICEA mining standards
- Encapsulated internal core prevents slippage during installation and in service, particularly during system electrical faults
- Prevents long term creepage of internal core

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- Flame retardant (FT4)
- Suitable for hazardous locations (HL)

Hi-Tensile Verlok® Benefits

- Lower installed cost
- Minimizes shaft downtime
- Each installation is designed to meet industry safety standards
- Available in voltages up to 46 kV and lengths up to and beyond 2000 feet
- Longer vertical and horizontal pulls are possible
- Smaller bending radius than SWA resulting in lower cost, fewer splices and improved system reliability
- Pulling is primarily done by flexible high strength steel members
- Higher resistance to mechanical impact (flyrock, etc.)
- Uses standard interlocked armour cable connectors
- Available in XLPE or EPR Insulation, and also in Instrumentation, Communication and Composite constructions plus colored outer jackets
- Factory preparation for pulling eyes available as an option
- Designs available for Single point suspension (boreholes, etc.)
- Optional low-smoke, low toxicity outer jacket available
- MSHA and CSA approved (HL/FT4)

Hi-Tensile Verlok® Mounting Bracket and Clamps

The **Hi-Tensile Verlok®** mounting bracket saves a significant amount of time and cost in the installation of the cable. Each bracket is custom designed with your mine in mind (specific wall condition, other cables and pipes already installed). The standard bracket is made of standard steel which would be cleaned and painted by the installer while painted and galvanized brackets are available. Stainless steel brackets can be produced and highly recommend in corrosive environments.

- Reduces the cost of installation

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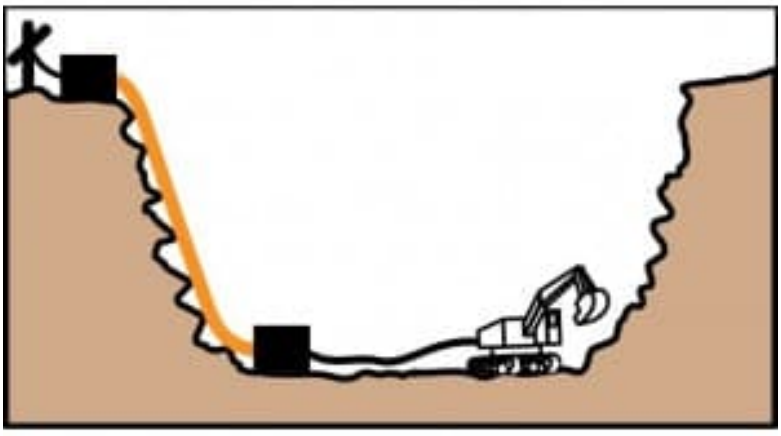
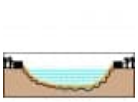
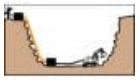
- Additional posts available for more cables, etc.
- Increased cable surface grip for superior hold
- Utilizes standard band-type clamps; no need for customized clamps

Hi-Tensile Verlok® Applications







Hi-Tensile Verlok® is the ideal design of vertical and horizontal electrical power and control cable for not only underground mining applications, but also for **open pit mines, high-rise buildings, submarine crossings** and **industrial utility facilities** where tensile strength is essential.

THE OKONITE COMPANY

Product Data Sheet

INQUIRY NO. 24-41058 ITEM NO. 001

MADE IN THE USA
Quality Cables Since 1878

3/C, 15kV Rated, 133% Insulation Level, LOXARMOR®, XIP Steel Wires

CONDUCTOR: 250 kcmil Compact Round Class B Strand Copper

CONDUCTOR SCREEN: Extruded Semiconducting (SC-EPR)

INSULATION: 220 Ethylene Propylene Rubber OKOGUARD®

INSULATION SCREEN: Extruded Semiconducting (SC-EPR)

METALLIC SHIELD: .005" Copper Tape Shield with 25% Min. Lap

INTERSTICE FILLERS: Center Filler Round Rubber

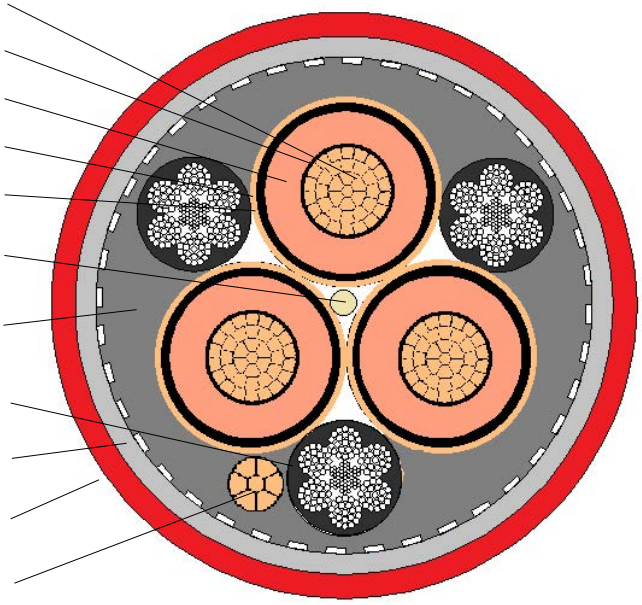
INNER JACKET: 080 Extrude-to-Fill LT/FR OKOSEAL® PVC w/Splines

SUPPORT WIRES: Three 1/2" (6x37) Galv. XIP Steel Tensile Members covered with .035" LT/FR OKOSEAL® PVC

ARMOR: Galvanized Steel Interlocked LOXARMOR® (IAC)

OUTER JACKET: 075 Red LT/FR OKOSEAL® PVC (Polyvinyl Chloride)

GROUND: One #2 AWG Compact Round Class B Strand Copper



Dimensions	Thickness (in.)		Diameter (in.)		
	Nominal	*Min. Pt.		Nominal	
Conductor	N/A			0.524	
Cond. Screen	0.015	0.012		0.557	
Insulation	0.220	0.210		1.003	
Insul. Screen	0.027	0.024		1.069	
Metallic Shield	0.005			1.084	
Loxarmor				3.000	
Outer Jacket	0.075			3.162	

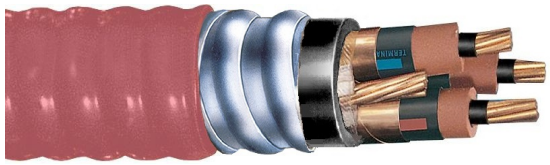
* Minimum Point

Cable Weight (lbs./M'): 9246

Cable Description

3/C 250 CLASS B COPPER C-RD -SS- 220 OKOGUARD EPR - 024 SC EPR - COLORED MYLAR STRIPS 005 COPPER TAPE (22.5% MIN LAP) - CABLED W/1 #2 CLASS B COPPER GRD WIRE - 3 X 1/2 6X36 GALV STEEL SUPPORT MEMBERS - 080 LT/FR OKOSEAL PVC W/SPLINES - 040 GALVANIZED STEEL LOXARMOR - 075 RED LT/FR OKOSEAL PVC - SEQ PRINT - 15KV

TEMPERATURE RATINGS
105°C - Continuous
140°C - Emergency
250°C - Short Circuit



Customer Name: UNITED WIRE & CABLE INC. **End User:** SDSTA

Industry Standards: ICEA S-93-639/S-97-682, UL 1072 MV-105, ASTM B-496, AEIC CS8 and CSA C68.10 FT4.

APPROVED BY: PT	Okonite Product Code 115				Date: 9/13/24
PREP. BY	SCALE	INQUIRY NO.	ITEM NO.	SERIAL NO.	DRAWING NO.
RWP	None	24-41058	001	05913	S - 36505

Cable Image is representative and meant to display individual cable components and is not to scale.
Cable Dimensions are Subject to Normal Manufacturing Tolerances.