Nexans AmerCable’s Traction Power Cable Qualifications

HISTORY

Nexans AmerCable’s expertise lies in the design and manufacture of flexible electrical cables intended for the most demanding applications and harshest environments.

Since the early 1970s, AmerCable has been the leading manufacturer of cables for the mining and offshore oil & gas industries. Cables for the mining industry must withstand extreme mechanical abuse, while cables for the offshore oil & gas industry must withstand constant exposure to drilling fluids and sunlight.

The cable insulation and jacketing material used by Nexans AmerCable on its oil & gas cables were originally developed by General Electric in the 1980s for use on diesel-electric locomotives. The material, trademarked as Gexol®, exhibited outstanding diesel fuel resistance and withstood high operating temperatures. Similarly, the low-smoke crosslinked polyolefin (XLPO) material used on its oil & gas cables was originally developed for use on US Navy shipboard cables which were constantly exposed to damp, brackish environments.

Since 1980, AmerCable has been a leading manufacturer of flexible single conductor diesel locomotive (DLO) cables as well as flexible single conductor Type W portable power cables.

The Nexans AmerCable factory, located in El Dorado, Arkansas, has several dual extrusion lines capable of applying and cross-linking insulation and jacket layers in a single inline process.

This product history and manufacturing capability made AmerCable very well suited to enter the single conductor rail traction power cable market.

In the early 1990s, AmerCable began delivering traction power cable to Long Island Railroad (LIRR), Massachusetts Bay Transit Authority (MBTA), Chicago Transit Authority (CTA), New York City Transit Authority (NYCTA), Bay Area Rapid Transit (BART), and Southeastern Pennsylvania Transit Authority (SEPTA). Supply of these traction power cables continued until the early 2000s when a surge in the mining and oil & gas markets consumed AmerCable’s plant capacity.

Since that period, the factory has greatly increased its capacity and has re-entered the traction power cable market. Nexans AmerCable has updated all its industry associated certifications (ex. AREMA, UL RHH-RHW, CSA RW90, etc.) and is fully “Buy America” compliant.

Additionally, in 2012, AmerCable was acquired by Nexans, the world’s second largest cable manufacturer. Being part of Nexans, AmerCable is now able to offer accessories (connectors, fittings, terminations, etc.), complimentary products, and services such as Cable Management.

e-mail: railway.sales@nexans.com
A major mining company needed a substantial quantity of a customized Tiger® Brand mining cable delivered to the largest gold mine and the second largest copper mine in the world. This remote mine is located in the province of Papua in Indonesia on top of Puncak Jaya, the highest mountain in Papua. A grand, traditional opening ceremony had been scheduled with all of Indonesia’s top officials attending. One problem. The trailing cable to power the gigantic electric shovels had not been ordered. AmerCable was able to manufacture and ship the cables in five days. The shovels performed and the event was a success.

An oil major had a large offshore production platform, destined for the Gulf of Mexico, being constructed in a South Texas shipyard. Construction of the facility was near completion but way behind schedule. For each additional day the facility remained in the shipyard, the oil major was being charged $1 million. A substantial amount of cable that had not been anticipated was needed to complete the project. AmerCable was able to manufacture and deliver the entire cable package in three weeks. To date, Nexans AmerCable is the preferred cable supplier for this oil major.

CABLE MANAGEMENT | RFID REEL TAGS & INVENTORY TRACKING

Cable management is a big part of Nexans AmerCable’s services and solutions offering. Rail projects typically require many reels of large, heavy electrical cables. Maintaining the integrity of the cables, cutting to needed lengths, and managing inventory balances can be very costly and time consuming. Nexans AmerCable is currently managing a rail rolling stock provider’s car wiring inventory program for needs throughout the United States. Nexans has established a warehousing facility in New York where it provides Just in Time (JIT) delivery of material to various projects and distribution to sub-contractors. The management system utilizes Smart Inventory Management (SIM) incorporating RFID tags installed on cable reels at the point of origin so the customer can track their cable reels throughout the supply chain. The cable management program can also integrate with a customer’s ERP platform and generate independent re-orders.

e-mail: railway.sales@nexans.com
Nexans has the world’s largest rail and transit wire and cable portfolio.

CERTIFICATIONS:
- AREMA
- UL RHH-RHW
- CSA RW90
- “Buy America” compliant

SIGNAL CABLE

MULTIPLE CONDUCTOR AREMA UNDERGROUND FLAME RESISTANT - Armorless - EPR/CPE - 600V

APPLICATION
- Training: Signal cables with low smoke and zero halogen jackets, suitable for use in environments exposed to smoke and fire hazards. Suitable for use in trains, stations, and other railway installations. Suitable for use in trains, stations, and other railway installations.
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CONSTRUCTION
- 1 – Conductor: Solid or stranded, bare or tinned in accordance with AREMA Sections 10.3.11, 10.3.12 and 10.3.16 or 10.3.17.
- 2 – Insulation: Black vulcanized black chlorinated polyethylene (CPE) Compound.
- 3 – Wrapping: One or more dielectric non-hygroscopic tape(s). Black vulcanized black chlorinated polyethylene (CPE) Compound.
- 4 – Inner Shield: Copper round wire screen.
- 5 – Outer Shield: Non-hygroscopic tape(s). Black vulcanized black chlorinated polyethylene (CPE) Compound.
- 6 – Armor: Copper round wire armor.
- 7 – Armor: Copper round wire armor.
- 8 – Armor: Copper round wire armor.

Properties:
- Sunlight resistant.
- Meets the flame and smoke release requirements of UL 1685 utilizing the Low Smoke Zero Halogen Construction.
- Exceptional resistance to deterioration and cut through at high temperatures.
- Mechanically Rugged.
- 90°C Continuous Rating. 130°C Emergency Overload Rating. 300°C Short Circuit Rating.
- Durable and flexible.
- EPR/CPE - 600V
- Multiple Conductor
- Armorless

SPECIFICATIONS

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<th>Application</th>
<th>Part</th>
<th>Number</th>
<th>Size</th>
<th>Conductors</th>
<th>Insulation</th>
<th>Thickness (mils)</th>
<th>Tensile Strength (psi)</th>
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CONTACT WIRE

APPLICATION
- Contact wire: including catenary wire and catenary supports for use in environments exposed to smoke and fire hazards. Suitable for use in trains, stations, and other railway installations. Suitable for use in trains, stations, and other railway installations.
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CONTACT WIRE MADE OF HIGH PURITY COPPER (CZ11)

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