



Nexans AmerCable Mine Power Feeder for Longwall Development

Nexans AmerCable’s Type MP-GC has been especially designed for applications where the cable is repeatedly hung and retrieved for longwall panels. This design is jacketed with lead-mold-cured Chlorinated Polyethylene (CPE) rubber. The method of jacket cure is an important part of a cable’s performance. Lead-mold-cure is a very unique process in which Nexans AmerCable carefully controls the time and temperature of the vulcanization process. Other methods, such as the Continuous Vulcanization of the cable jacket directly in a steam tube, do not offer the advantages of the low temperature/long term cure of the jacket inside a lead sleeve.

The latest innovation in MP-GC is the Taped Core Integral Fill design. This design effectively “locks up” the cable core in the longitudinal extrusion grain of the jacket. Tape Core Integral Fill has proven itself to be torsion resistant in longwall panel runs. The old design utilized polypropylene rope fillers in the interstices and a separator tape over the core. These fillers allowed the cable core to twist inside the jacket, resulting in very dramatic axial kinks in the cable. Kinks create mechanical stress on the cable core and, in particular, upon the insulation. Conductor to conductor pressure at the center interstice can distort the insulation cross-section. The components of AmerCable’s design remain in their originally manufactured helix significantly longer, provided that minimum bend radii and tensions are followed when handling.

Conductors

Copper

Ground Check Conductor

8 AWG 7-wire copper with yellow polypropylene insulation

Strand Shield

Semi-conducting layer

Insulation

90°C ethylene-propylene rubber (EPR)

Ground Wires

Flexible tinned copper



Ground Wires

Copper

Insulation Shielding

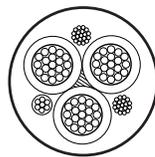
Semi-conducting layer under copper tape (phase identification provided)

Assembly

Taped core

Jacket¹

Reinforced mold-cured thermosetting Chlorinated Polyethylene (CPE) Jacket. Cable identification via permanent marking.



Round-shaped cross-section

