# REELING CABLES


Nexans

AmerCable

# Index



Nexans AmerCable's 400,000 sq. ft. manufacturing facility and corporate headquarters in El Dorado, Arkansas.

AmerCable ISO 9001:2015 CERTIFIED

# Our Commitment to the Reeling Industry

Nexans AmerCable

## Harsh reeling environments require specially engineered cables for longer service life and increased productivity.

No matter what type of crane you're operating, Nexans AmerCable has a reeling cable productivity solution for you. Our innovatively engineered and manufactured **Reeling Cable Family** is designed for your toughest conditions. As a leading producer of reeling cables in North America, Nexans AmerCable is dedicated to producing:

- cables that last longer in harsh reeling environments
- cables designed to help provide greater levels of safety and productivity

## REELING CABLE INNOVATION

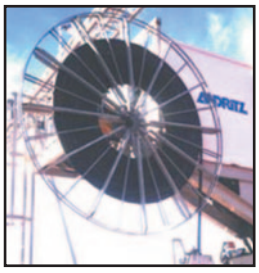
- Designing insulating and jacketing materials that are more flexible with greater resistance to abrasion and moisture
- Cable constructions that last longer providing reduced down time for increased production
- New product development that addresses environmental, safety and cost reduction issues specific to your mining application.

## OPERATING EXCELLENCE

- On-time delivery
- Standard lead-time of 6 to 8 weeks
- Urgent response shipment capability of 2 to 4 weeks
- AmerCable is an ISO-9001 certified manufacturer

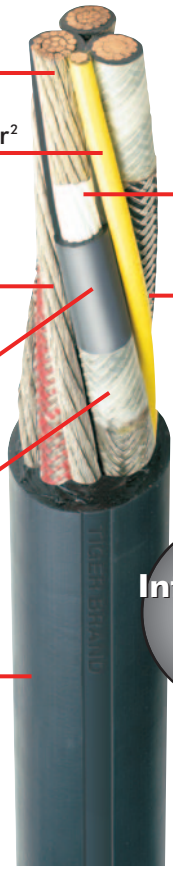

## FIELD SUPPORT

Our experienced field application engineers are available for on-site evaluation and solutions. They also conduct education and training sessions that address safety, splicing and cable handling issues.



36-503 INT/36-515 INT

# TYPE SHD-GC
# MOLD-CURED JACKET • 2000 VOLTS • 90°C




**Conductors**
Flexible tinned copper

**Ground Check Conductor**[2]
Flexible tinned copper with yellow polypropylene insulation

**Ground Wires**
Flexible tinned copper

**Insulation**
90°C ethylene-propylene rubber (EPR)

**Separator Tape**

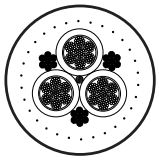
**Insulation**
90°C ethylene-propylene rubber (EPR)

**Jacket**[1]
Reinforced mold-cured thermosetting Chlorinated Polyethylene (CPE) Jacket. Cable identification via permanent marking.

**Tape**
Non-conducting

**Insulation Shielding**
Tinned copper and color coded nylon braid

**Pure Integral Fill**
for greater torsion resistance



Round-shaped cross-section

## APPLICATION

Tiger® Brand reeling cables are designed to provide safe, reliable performance on cable reelers and festoons operating worldwide at temperatures from -50°C to +50°C at speeds up to 750/min. These three conductor cables are designed for use with monospiral, level wind and random wind reelers on gantry cranes, container cranes, log handling cranes, stacker/reclaimers and other similar lifting equipment. They are suitable for outdoor use in ports, shipyards, lumber mills, steel mills and mines.

## RATINGS & SPECIFICATIONS

Mine Safety & Health Administration 184-MSHA.

Pennsylvania Department of Environmental Protection P-184.

ICEA S-75-381/NEMA WC-58
Design standard for mining cables

- Natural Resources Canada Certification No. 910.
  Type SHD-GC, SHD-BGC up to 25kV
- Canadian Standards Association File 82346, FT1, FT5, -50°.
  Type SHD-GC, SHD-BGC up to 25kV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## 36-503 INT • TYPE SHD-GC 3/C • 2000 VOLTS • 90°C

| 36-503- | Power Conductors Size AWG | No. of Wires per | | Ground Conductors Size AWG | No. of Wires per Conductor | | Nominal Outside Diameter in. | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp | Maximum Tensile Load (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|
| 006 INT | 6 | | | 10 | 49 | 7x7 | 1.29 | 1160 | 102 | 184 |
| 004 INT | 4 | 133 | 7x19 | 8 | 133 | 7x19 | 1.40 | 1490 | 134 | 292 |
| 002 INT | 2 | 259 | 7x37 | 6 | 133 | 7x19 | 1.59 | 2000 | 175 | 466 |
| 001 INT | 1 | 259 | 7x37 | 5 | 133 | 7x19 | 1.76 | 2450 | 202 | 587 |
| 010 INT | 1/0 | 259 | 7x37 | 4 | 259 | 7x37 | 1.86 | 2840 | 232 | 741 |
| 020 INT | 2/0 | 266 | 19x14 | 3 | 259 | 7x37 | 2.00 | 3400 | 267 | 934 |
| 030 INT | 3/0 | 342 | 19x18 | 2 | 259 | 7x37 | 2.13 | 3680 | 306 | 1178 |
| 040 INT | 4/0 | 418 | 19x22 | 1 | 259 | 7x37 | 2.31 | 4860 | 353 | 1178 |
| 250 INT | 250 | 532 | 19x28 | 1/0 | 266 | 19x14 | 2.51 | 5950 | 390 | 1178 |
| 350 INT | 350 | 627 | 19x33 | 2/0 | 342 | 19x18 | 2.81 | 7400 | 478 | 1178 |
| 500 INT | 500 | 888 | 37x24 | 4/0 | 532 | 19x28 | 3.19 | 10100 | 589 | 1178 |

## 36-515 INT • TYPE SHD-GC 3/C • 5000 VOLTS • 90°C

| 36-515- | Power Conductors Size AWG | No. of Wires per Conductor | | Ground Conductors Size AWG | No. of Wires per Conductor | | Nominal Outside Diameter in. | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp | Maximum Tensile Load (lbs.) |
|---|---|---|---|---|---|---|---|---|---|---|
| 006 INT | 6 | 133 | 7x19 | 10 | 49 | 7x7 | 1.56 | 1560 | 102 | 184 |
| 004 INT | 4 | 259 | 7x37 | 8 | 133 | 7x19 | 1.68 | 1920 | 134 | 292 |
| 002 INT | 2 | 259 | 7x37 | 6 | 133 | 7x19 | 1.87 | 2500 | 175 | 466 |
| 001 INT | 1 | 259 | 7x37 | 5 | 133 | 7x19 | 1.95 | 2860 | 202 | 587 |
| 010 INT | 1/0 | 266 | 19x14 | 4 | 259 | 7x37 | 2.08 | 3390 | 232 | 741 |
| 020 INT | 2/0 | 342 | 19x18 | 3 | 259 | 7x37 | 2.20 | 3830 | 267 | 934 |
| 030 INT | 3/0 | 418 | 19x22 | 2 | 259 | 7x37 | 2.36 | 4418 | 306 | 1178 |
| 040 INT | 4/0 | 532 | 19x28 | 1 | 259 | 7x37 | 2.50 | 5300 | 353 | 1178 |
| 250 INT | 250 | 627 | 19x33 | 1/0 | 266 | 19x14 | 2.69 | 6450 | 390 | 1178 |
| 350 INT | 350 | 888 | 37x24 | 2/0 | 342 | 19x18 | 2.95 | 7880 | 478 | 1178 |
| 500 INT | 500 | 1221 | 37x33 | 4/0 | 532 | 19x28 | 3.31 | 10440 | 589 | 1178 |

[1] **Jacket** – CPE or chlorosulfonated polyethylene (Hypalon®) jackets. Black CPE is standard. Colored CPE and black Hypalon® jackets available upon request.

[2] **Ground Check Conductor** –
8 AWG (minimum 133 strand 7x19) ground check conductor on 6 AWG through 4/0 AWG cable.
6 AWG (minimum 133 strand 7x19) ground check conductor on 250 kcmil and larger cable.

[3] **Ampacity** – Based on continuous duty at 90°C conductor temperature.

**Tolerances** – +8%/- 5% of nominal outside diameter on 5000 Volt cables
± 5% of nominal outside diameter on 2000 Volt cables

Minimum bend radius = 6X Diameter.

36-503 ARA/36-515 ARA

# TIGER® BRAND REELING CABLE • TYPE SHD-GC 2-5KV OR 2000V • ARAMID REINFORCEMENT • 90°C

**Conductors**
Flexible tinned copper

**Ground Check Conductor**[2]
Flexible tinned copper with yellow polypropylene insulation

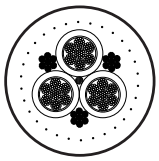
**Tape**
Non-conducting

**Insulation Shielding**
Tinned copper and color coded nylon braid

**Jacket**[1]
Two layer reinforced mold-cured Black Hypalon® with Aramid fiber ropes encapsulated between layers

**Ground Wires**
Flexible tinned copper

**Insulation**
90°C ethylene-propylene rubber (EPR)



Round-shaped cross-section

## RATINGS & SPECIFICATIONS

- Mine Safety & Health Administration 184-MSHA.
- Pennsylvania Department of Environmental Protection P-184.
- ICEA S-75-381/NEMA WC-58
  Design standard for mining cables
- Natural Resources Canada Certification No. 910.
  Type SHD-GC, SHD-BGC up to 25kV
- Canadian Standards Association File 82346, FT1, FT5, -50°.
  Type SHD-GC, SHD-BGC up to 25kV

## APPLICATION

Tiger® Brand Reeling Cables are designed to provide safe, reliable performance on cable reelers and festoons operating worldwide at temperatures from -50°C to +50°C at speeds up to 75 feet per minute. These three conductor cables have been specially reinforced with Aramid fibers, encapsulated within an extra heavy thermoset jacket. This special reinforcement allows these cables to be used in long unsupported lengths and in reeling applications where high tension is involved. These cables are designed to deliver superior performance with monospiral, level wind and random wind reelers on gantry cranes, stacker/reclaimers and other similar lifting equipment. They are suitable for outdoor use in ports, shipyards, lumber mills, steel mills and mines.

## FEATURES

- Extra flexible, tinned, rope stranded conductors used for maximum flexibility and long life.
- Two bare grounds are used giving a total cross sectional area equal to at least 60% of the power conductor.
- Ground check is insulated with abrasion and kink resistant polypropylene to maximize performance and ensure maximum circuit integrity.
- An Extra Heavy Duty Jacket is applied for maximum abrasion, mechanical and weather protection. The pure integral fill inner jacket gives resistance to torsion and longitudinal movement of the components under the jacket.
- The unique combination of design features (very flexible conductors, pure integral fill, Aramid fiber reinforcing braid encapsulated in an extra heavy duty weather resistant thermoset jacket) gives a high degree of resistance to torsion and extremely high tensile strength and shock load.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## 36-503 ARA • TYPE SHD-GC 3/C • 2KV • ARAMID REINFORCEMENT • 90°C

| Power Conductors | | | Ground Conductors | | | | | |
|---|---|---|---|---|---|---|---|---|
| 36-503- | Size AWG | Power Conductor Diameter (in.) | Size AWG/ kcmil | Ground Conductor Diameter (in.) | Nominal Outside Diameter (in.) | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp | Maximum Tensile Load (lbs.) |
| 006 ARA | 6 | 0.204 | 10 | 0.129 | 1.29 | 1160 | 102 | — |
| 004 ARA | 4 | 0.259 | 8 | 0.164 | 1.40 | 1490 | 134 | 850 |
| 002 ARA | 2 | 0.321 | 6 | 0.204 | 1.59 | 2000 | 175 | 850 |
| 001 ARA | 1 | 0.366 | 5 | 0.238 | 1.76 | 245 | 202 | 1050 |
| 010 ARA | 1/0 | 0.413 | 4 | 0.259 | 1.86 | 2840 | 232 | 1250 |
| 020 ARA | 2/0 | 0.468 | 3 | 0.291 | 2.00 | 3400 | 267 | 1450 |
| 030 ARA | 3/0 | 0.518 | 2 | 0.321 | 2.13 | 3680 | 306 | 1650 |
| 040 ARA | 4/0 | 0.584 | 1 | 0.366 | 2.31 | 4860 | 353 | 1850 |
| 250 ARA | 250 | 0.634 | 1/0 | 0.413 | 2.51 | 5950 | 390 | 1850 |
| 350 ARA | 350 | 0.757 | 2/0 | 0.468 | 2.81 | 7400 | 478 | 1850 |
| 500 ARA | 500 | 0.888 | 4/0 | 0.584 | 3.19 | 10100 | 589 | 1850 |

## 36-515 ARA • TYPE SHD-GC 3/C • 5KV • ARAMID REINFORCEMENT • 90°C

| Power Conductors | | | Ground Conductors | | | | | |
|---|---|---|---|---|---|---|---|---|
| 36-515- | Size AWG | Power Conductor Diameter (in.) | Size AWG/ kcmil | Ground Conductor Diameter (in.) | Nominal Outside Diameter (in.) | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp | Maximum Tensile Load (lbs.) |
| 006 ARA | 6 | 0.204 | 10 | 0.129 | 1.56 | 1560 | 102 | — |
| 004 ARA | 4 | 0.259 | 8 | 0.164 | 1.68 | 1920 | 134 | 850 |
| 002 ARA | 2 | 0.321 | 6 | 0.204 | 1.87 | 2500 | 175 | 850 |
| 001 ARA | 1 | 0.366 | 5 | 0.238 | 1.95 | 2860 | 202 | 1050 |
| 010 ARA | 1/0 | 0.413 | 4 | 0.259 | 2.08 | 3390 | 232 | 1250 |
| 020 ARA | 2/0 | 0.468 | 3 | 0.291 | 2.20 | 3830 | 267 | 1450 |
| 030 ARA | 3/0 | 0.518 | 2 | 0.321 | 2.36 | 4418 | 306 | 1650 |
| 040 ARA | 4/0 | 0.584 | 1 | 0.366 | 2.50 | 5300 | 353 | 1850 |
| 250 ARA | 250 | 0.634 | 1/0 | 0.413 | 2.69 | 6450 | 390 | 1850 |
| 350 ARA | 350 | 0.757 | 2/0 | 0.468 | 2.95 | 7880 | 478 | 1850 |
| 500 ARA | 500 | 0.888 | 4/0 | 0.584 | 3.31 | 10440 | 589 | 1850 |

[1] **Jacket** – Black CPE is standard. Colored CPE available upon request.

[2] **Ground Check Conductor** –
10 AWG ground check conductor on 6 AWG.
6 AWG ground check on 250 kcmil and larger cable.
8 AWG ground check conductor on 4 AWG through 4/0 AWG cable.

[3] **Ampacity** – Based on continuous duty at 90°C conductor temperature.

**Tolerances** – ±5% of nominal outside diameter on 2000 Volt cables
+8%/-5% of nominal outside diameter on 5000 Volt cables

Minimum Bend Radius = 6X Diameter.

Tiger® Brand is a registered trademark of AmerCable Incorporated.

36-517 INT/36-519 INT

# TIGER® BRAND REELING CABLE • TYPE SHD-GC 8-15KV • 90°C

**Conductors**
Flexible tinned copper

**Ground Check Conductor**[2]
Flexible tinned copper with yellow polypropylene

**Strand Shield**
Semi-conducting layer

**Ground Wires**
Flexible tinned copper

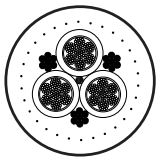
**Assembly**
Pure integral fill

**Jacket**[1]
Two layer reinforced mold-cured chlorinated polyethylene (CPE)


**Separator Tape**

**Insulation Shielding**
Tinned copper and color coded nylon braid

**Insulation**
90°C ethylene-propylene rubber (EPR)



Round-shaped cross-section

## APPLICATION

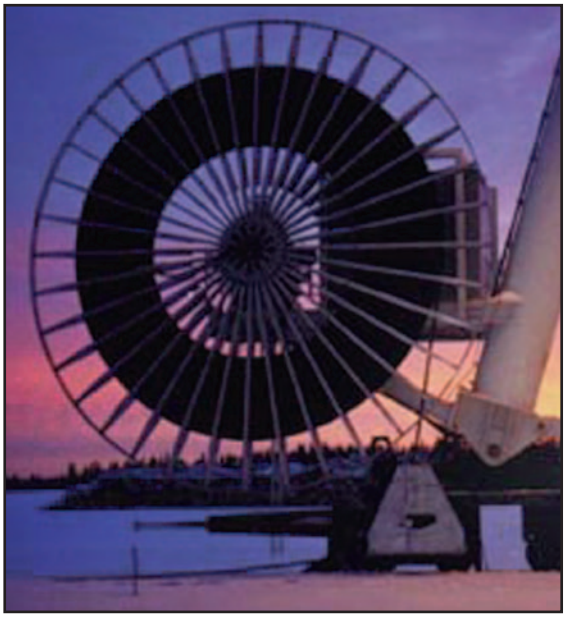
Tiger® Brand Reeling Cables are designed to provide safe, reliable performance on cable reelers and festoons operating worldwide at temperatures from -50°C to +50°C at speeds up to 75 feet per minute. These three conductor cables are designed for use with monospiral, level wind and random wind reelers on gantry cranes, stacker/reclaimers and other similar lifting equipment. They are suitable for outdoor use in ports, shipyards, lumber mills, steel mills and mines.

## FEATURES

- Extra flexible, tinned, rope stranded conductors used for maximum flexibility and long life.
- Two bare grounds are used giving a total cross sectional area equal to at least 60% of the power conductor. Ground check is insulated with abrasion and kink resistant polypropylene to maximize performance and ensure maximum circuit integrity.
- An Extra Heavy Duty Jacket is applied for maximum abrasion, mechanical and weather protection. The pure integral fill inner jacket gives resistance to torsion and longitudinal movement of the components under the jacket.

## RATINGS & SPECIFICATIONS

- Mine Safety & Health Administration 184-MSHA.
- Pennsylvania Department of Environmental Protection P-184.
- ICEA S-75-381/NEMA WC-58
  Design standard for mining cables
- Natural Resources Canada Certification No. 910.
  Type SHD-GC, SHD-BGC up to 25kV
- Canadian Standards Association File 82346, FT1, FT5, -50°.
  Type SHD-GC, SHD-BGC up to 25kV

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## 36-517 INT • TYPE SHD-GC 3/C • 8-15KV • 90°C

| Power Conductors | | | Ground Conductors | | | | | |
|---|---|---|---|---|---|---|---|---|
| 36-517- | Size AWG | Power Conductor Diameter (in.) | Size AWG/ kcmil | Ground Conductor Diameter (in.) | Nominal Outside Diameter (in.) | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp | Maximum Tensile Load (lbs.) |
| 004 INT | 4 | 0.259 | 8 | 0.164 | 1.94 | 2180 | 134 | 293 |
| 002 INT | 2 | 0.321 | 6 | 0.204 | 2.12 | 2830 | 175 | 466 |
| 001 INT | 1 | 0.366 | 5 | 0.238 | 2.21 | 3350 | 202 | 587 |
| 010 INT | 1/0 | 0.413 | 4 | 0.259 | 2.32 | 3590 | 232 | 741 |
| 020 INT | 2/0 | 0.468 | 3 | 0.291 | 2.46 | 4190 | 267 | 934 |
| 030 INT | 3/0 | 0.518 | 2 | 0.321 | 2.62 | 5075 | 306 | 1178 |
| 040 INT | 4/0 | 0.584 | 1 | 0.366 | 2.75 | 5660 | 353 | 1178 |
| 250 INT | 250 | 0.634 | 1/0 | 0.413 | 2.89 | 6740 | 390 | 1178 |
| 350 INT | 350 | 0.757 | 2/0 | 0.468 | 3.20 | 8460 | 478 | 1178 |
| 500 INT | 500 | 0.888 | 4/0 | 0.584 | 3.56 | 10700 | 589 | 1178 |

## 36-519 INT • TYPE SHD-GC 3/C • 8-15KV • 90°C

| Power Conductors | | | Ground Conductors | | | | | |
|---|---|---|---|---|---|---|---|---|
| 36-519- | Size AWG | Power Conductor Diameter (in.) | Size AWG/ kcmil | Ground Conductor Diameter (in.) | Nominal Outside Diameter (in.) | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp | Maximum Tensile Load (lbs.) |
| 002 INT | 2 | 0.321 | 6 | 0.204 | 2.42 | 3500 | 180 | 466 |
| 001 INT | 1 | 0.366 | 5 | 0.238 | 2.52 | 4080 | 205 | 587 |
| 010 INT | 1/0 | 0.413 | 4 | 0.259 | 2.64 | 4610 | 236 | 741 |
| 020 INT | 2/0 | 0.468 | 3 | 0.291 | 2.73 | 4890 | 270 | 934 |
| 030 INT | 3/0 | 0.518 | 2 | 0.321 | 2.90 | 5589 | 311 | 1178 |
| 040 INT | 4/0 | 0.584 | 1 | 0.366 | 3.05 | 6820 | 357 | 1178 |

[1] **Jacket** – Black CPE is standard. Colored CPE available upon request.

[2] **Ground Check Conductor** –
8 AWG ground check conductor on 6 AWG through 4/0 AWG cable.
6 AWG ground check on 250 kcmil and larger cable.

[3] **Ampacity** – Based on continuous duty at 90°C conductor temperature.

**Tolerances** –+8%/±5% of nominal outside diameter

Minimum Bend Radius = 8X Diameter.

36-442

# TIGER® BRAND REELING CABLE • TYPE G-GC 2000 VOLTS • 90°C

**Conductors**
Extra flexible tinned rope stranded copper conductors

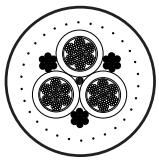
**Ground Check Conductor[2]**
Flexible tinned copper with yellow polypropylene insulation

**Separator Tape Non-conductive**

**Ground Wires (2)**
Extra flexible tinned rope stranded copper conductors with no covering

**Insulation**
EPDM (EPR) suitable for continuous operation at 90°C. Ozone Resistant

**Jacket[1]**
Reinforced mold-cured thermosetting Chlorinated Polyethylene (CPE) Jacket. Cable identification via permanent mar



Round-shaped cross-section

## APPLICATION

Tiger® Brand Reeling Cables are designed to provide safe, reliable performance on cable reelers and festoon systems operating worldwide at temperatures from -50°C to +50°C at speeds up to 750ft./min. These three conductor cables are designed for use with monospiral, level wind, random wind reelers and festoon tracks on gantry cranes, container cranes, log handling cranes, stacker/reclaimers and other similar lifting equipment. They are suitable for outdoor use in ports, shipyards, lumber mills, steel mills and mines.

## Features

- Extra flexible, tinned, rope stranded conductors used for maximum flexibility and long life.
- Two bare grounds are used giving a total cross sectional area equal to at least 60% of the power conductor.
- Ground Check is insulated with abrasion and kink resistant polypropylene to maximize performance and ensure maximum circuit integrity.
- An Extra Heavy Duty Jacket is applied for maximum abrasion, mechanical and weather protection. The pure integral fill inner jacket gives resistance to torsion and longitudinal movement of the components under the jacket.

## RATINGS & SPECIFICATIONS

- Mine Safety & Health Administration 184-MSHA.
- Pennsylvania Department of Environmental Protection P-184.
- Insulated Cable Engineers Association S-75-381/NEMA WC-58. Design standard for mining cables
- Canadian Standards Association C22.2 No. 96File 82346, FT1, FT5, -40°C. CSA Phase Color ID available on Type W, G, G-GC, G-BGC up to 35kV.
- RETIE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# 36-442 • TYPE G-GC • 2000 VOLTS • 90°C

| Power Conductors | | Ground Conductors | | | |
|---|---|---|---|---|---|
| 36-442- | Size AWG/ kcmil | Size AWG | Nominal Outside Diameter in. | Approx. Weight lbs. per 1,000 ft. | Ampacity [3] 30°C Ambient Temp |
| 008 | 8 | 10 | 0.97 | 600 | 64 |
| 006 | 6 | 10 | 1.05 | 750 | 86 |
| 004 | 4 | 8 | 1.19 | 1070 | 114 |
| 002 | 2 | 7 | 1.34 | 1480 | 151 |
| 001 | 1 | 6 | 1.51 | 1890 | 177 |
| 010 | 1/0 | 5 | 1.65 | 2340 | 204 |
| 020 | 2/0 | 4 | 1.75 | 2750 | 236 |
| 030 | 3/0 | 2 | 1.89 | 3777 | 273 |
| 040 | 4/0 | 2 | 2.04 | 3980 | 315 |
| 250 INT | 250 | 2 | 2.39 | 5000 | 352 |
| 350 INT | 350 | 1/0 | 2.68 | 6750 | 433 |
| 500 INT | 500 | 2/0 | 3.03 | 8900 | 535 |

[1] **Jacket** – Black CPE is standard. Colored CPE jackets available upon request.

[2] **Ground Check Conductor** – 10 AWG ground check conductor on 8 AWG through 2 AWG cable.

8 AWG ground check conductor on 1 AWG through 4/0 AWG cable.

6 AWG ground check conductor on 250 kcmil and larger cable.

Minimum Bend Radius = 6X Diameter.

[3] **Ampacity** – Based on continuous duty at 90°C conductor temperature.

**Tolerances** – ± 0.030" 8-1 AWG
± 0.040" 1/0 - 2/0 AWG
± 0.050" 4/0 AWG
± 0.060" 250 - 500 kcmil

36-430

# TYPE W MAGNET CRANE REELING CABLE 600-2000V • 2-CONDUCTOR • 90°C

**Conductors**
Bunched strands of tinned annealed copper per ASTM B33. Stranding other than those listed in the table are available upon special order

**Insulation**
ASTM D-2802. Insulation material color coded through AWG size #2. Larger sizes are coded with fabric tape wraps. One black, one white.

**Separator**
A suitable separator provides for easy stripping of insulation

**Fillers**
Fibrous filler provides great impact resistance and flexibility. Rubber fillers are available upon special order.

**Jacket**
Flame retardant, oil and sunlight resistant Chlorinated Polyethylene (CPE). Reinforced, two layer jacket construction is used on AWG size 4/0 and larger cables. Black is standard. Consult factory for colored jackets

## Ratings & Specifications

- UL Listed as Type W

UL Listed as Type TC

- ASTM B-33: Standard specification for tinned soft or annealed copper wire for electrical purposes
- ASTM D2802: Standard specification for ozone-resistant ethylene-alkene polymer insulation for wire and cable
- ICEA S-95-658/ NEMA WC-70: Nonshielded Power Cables Rated 2000 Volts or Less for the Distribution of Electrical Energy
- MSHA P-184
- Flame Resistance: FT4

## APPLICATION

Nexans AmerCable's Type W 600-2000 Volt two conductor cables are recommended for installations where long flex life, great flexibility, and wearability are desired. Applications include heavy duty or temporary power supply service, AC or DC, to motor or generators, portable and stationary heavy duty equipment, cranes, conveyors and other mobile equipment. They are especially recommended to supply power for magnet crane applications. They may be installed in air, in ducts, immersed in water or directly buried in the earth. However, they are not UL Type USE. For cables requiring reduced flame propagation, refer to the factory.

## FEATURES

- Suitable for continuous operating temperatures of 90°C
- Suitable for use in festoons, suspended loops and power tracks
- Suitable for use on Payout and Retractable reels (P&R)
- Heavy Duty jacket offers excellent protection against abrasion, impact, heat, oil, flame, ozone, alkali and acids.
- Extremely flexible stranding used for increased flexibility and ease of installation
- Dual Rated 600V and 2kV

# 36-430 • TYPE W • MAGNET CRANE • 2-CONDUCTOR

| Part No. 37-430- | Size AWG/ kcmil | Minimum Wires per Conductor | Nominal Insulation Thickness in. | Nominal Jacket Thickness in. | Nominal Outside Diameter in. | Approx. Weight lbs. per 1,000 ft. | Ampacity* 90°C Conductor 30°C Ambient Temp |
|---|---|---|---|---|---|---|---|
| 008 | 8 | 133 | 0.060 | 0.109 | 0.830 | 369 | 74 |
| 006 | 6 | 133 | 0.060 | 0.109 | 0.960 | 518 | 99 |
| 004 | 4 | 133 | 0.060 | 0.109 | 1.080 | 715 | 130 |
| 002 | 2 | 259 | 0.060 | 0.141 | 1.280 | 1045 | 174 |
| 010 | 1/0 | 266 | 0.080 | 0.156 | 1.560 | 1464 | 234 |
| 020 | 2/0 | 342 | 0.080 | 0.156 | 1.660 | 1788 | 271 |
| 040 | 4/0 | 532 | 0.080 | 0.172 | 1.973 | 2530 | 361 |
| 250 | 250 | 627 | 0.095 | 0.165 | 2.100 | 2664 | 402 |
| 350 | 350 | 888 | 0.095 | 0.176 | 2.360 | 3854 | 495 |
| 500 | 500 | 1221 | 0.095 | 0.214 | 2.700 | 5191 | 613 |

* Ampacity is calculated with a 90°C conductor temperature and 30°C ambient air, per 1999 NEC, Table 400-5(B)

Cable diameters and weights are subject to +/- 5% manufacturing tolerance.

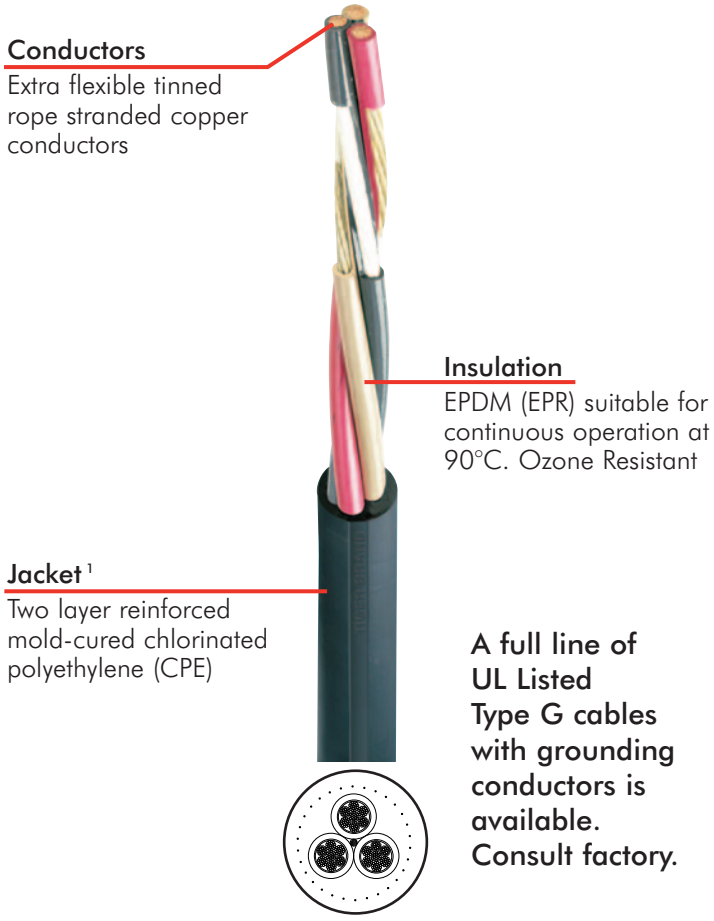
Sizes 8 awg through 1/0 are labeled "MAGNET CRANE CABLE"

**A full line of UL Listed Type G cables with grounding conductors is available. Consult factory.**


Tiger® Brand is a registered trademark of AmerCable Incorporated.

36-431

# TYPE W REELING CABLE
# 2000 VOLTS • 3-CONDUCTOR • 90°C




Round-shaped cross-section

**A full line of UL Listed Type G cables with grounding conductors is available. Consult factory.**

## APPLICATION

Nexans AmerCable's Type W reeling cables are designed to provide safe, reliable performance on cable reelers and festoon systems operating worldwide at temperatures from -50°C to +50°C at speeds up to 750ft./min. These three conductor cables are designed for use with monospiral, level wind, random wind reelers and festoon tracks on gantry cranes, container cranes, log handling cranes, stacker/reclaimers and other similar lifting equipment. They are suitable for outdoor use in ports, shipyards, lumber mills, steel mills and mines.

## FEATURES

- Extra flexible, tinned, rope stranded conductors used for maximum flexibility and long life.
- An Extra Heavy Duty Jacket is applied for maximum abrasion, mechanical and weather protection. The pure integral fill inner jacket gives resistance to torsion and longitudinal movement of the components under the jacket.

| Power Conductors | | | | | |
|---|---|---|---|---|---|
| 36-442- | Size AWG | Insulation Thickness mils | Nominal Outside Diameter in. | Approx. Weight lbs. per 1,000 ft. | Ampacity [2] 90°C Conductor 30°C Ambient Temp |
| 008 | 8 | 60 | 0.91 | 550 | 64 |
| 006 | 6 | 60 | 1.01 | 730 | 86 |
| 004 | 4 | 60 | 1.17 | 1020 | 114 |
| 002 | 2 | 60 | 1.34 | 1430 | 151 |
| 001 | 1 | 80 | 1.51 | 1800 | 177 |
| 010 | 1/0 | 80 | 1.65 | 2140 | 204 |
| 020 | 2/0 | 80 | 1.75 | 2580 | 236 |
| 030 | 3/0 | 80 | 2.07 | 3800 | 273 |
| 040 | 4/0 | 80 | 1.89 | 2922 | 315 |

[1] **Jacket** – Black CPE is standard. Colored CPE jackets available upon request.

**Tolerances** – ± 0.030" 8-1 AWG
± 0.040" 1/0 - 2/0 AWG
± 0.050" 4/0 AWG

[2] **Ampacity** – Based on continuous duty at 90°C conductor temperature.

Minimum Bend Radius = 6X Diameter.

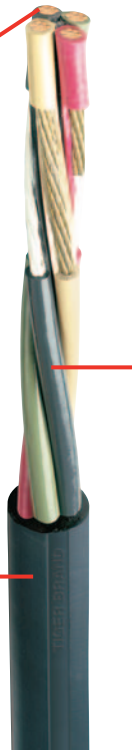
## RATINGS & SPECIFICATIONS

- Mine Safety & Health Administration 184-MSHA.
- Pennsylvania Department of Environmental Protection P-184.
- ICEA S-75-381/NEMA WC-58 Design standard for mining cables
- Natural Resources Canada Certification No. 910. Type W, G, G-GC, G-BGC up to 2kV
- Canadian Standards Association File 82346, FT1, FT5, -50.° Type W, G, G-GC, G-BGC up to 2kV
- NEC 1999 Listed and labeled per article 400


Manufactured by Nexans AmerCable • (870) 862-4919 • (800) 643-1516 • Fax (870) 862-9613

36-432

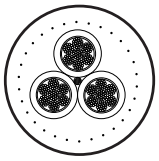
# TYPE W REELING CABLE
# 2000 VOLTS • 4-CONDUCTOR • 90°C



**Conductors**
Extra flexible tinned rope stranded copper conductors

**Insulation**
EPDM (EPR) suitable for continuous operation at 90°C. Ozone Resistant

**Jacket** [1]
Two layer reinforced mold-cured chlorinated polyethylene (CPE)



Round-shaped cross-section

**A full line of UL Listed Type G cables with grounding conductors is available. Consult factory.**

## APPLICATION

Nexans AmerCable's Type W reeling cables are designed to provide safe, reliable performance on cable reelers and festoon systems operating worldwide at temperatures from -50°C to +50°C at speeds up to 750ft./min. These four-conductor cables are designed for use with monospiral, level wind, random wind reelers and festoon tracks on gantry cranes, container cranes, log handling cranes, stacker/reclaimers and other similar lifting equipment. They are suitable for outdoor use in ports, shipyards, lumber mills, steel mills and mines.

## FEATURES

Extra flexible, tinned, rope stranded conductors used for maximum flexibility and long life.

■ An Extra Heavy Duty Jacket is applied for maximum abrasion, mechanical and weather protection. The pure integral fill inner jacket gives resistance to torsion and longitudinal movement of the components under the jacket.

| Power Conductors | | | | | |
|---|---|---|---|---|---|
| 36-442- | Size AWG | Insulation Thickness mils | Nominal Outside Diameter in. | Approx. Weight lbs. per 1,000 ft. | Ampacity [2] 90°C Conductor 30°C Ambient Temp |
| 008 | 8 | 60 | .99 | 670 | 59 |
| 006 | 6 | 60 | 1.10 | 890 | 79 |
| 004 | 4 | 60 | 1.27 | 1250 | 102 |
| 002 | 2 | 60 | 1.48 | 1800 | 134 |
| 001 | 1 | 80 | 1.68 | 2270 | 157 |
| 010 | 1/0 | 80 | 1.79 | 2680 | 181 |
| 020 | 2/0 | 80 | 1.93 | 3200 | 211 |
| 030 | 3/0 | 80 | 2.07 | 3627 | 243 |
| 040 | 4/0 | 80 | 2.26 | 4650 | 280 |

[1] **Jacket** – Black CPE is standard. Colored CPE jackets available upon request.

**Tolerances** – ± 0.030" 8-1 AWG
± 0.040" 1/0 - 2/0 AWG
± 0.050" 4/0 AWG

[2] **Ampacity** – Based on continuous duty at 90°C conductor temperature.

Minimum Bend Radius = 6X Diameter.

## RATINGS & SPECIFICATIONS

- Mine Safety & Health Administration 184-MSHA.
- Pennsylvania Department of Environmental Protection P-184.
- ICEA S-75-381/NEMA WC-58 Design standard for mining cables
- Natural Resources Canada Certification No. 910. Type W, G, G-GC, G-BGC up to 2kV
- Canadian Standards Association File 82346, FT1, FT5, -50° Type W, G, G-GC, G-BGC up to 2kV
- NEC 1999 Listed and labeled per article 400

# TECHNICAL GUIDE

## TERMINATION

Jacket removal is best accomplished by the use of a hawk-bill or long knife. Cut a 1 to 1.5 inch wide swatch of jacket down to the core starting at the end of the jacket cut-off location and work towards the lug end. Keep the knife blade angle low. This will prevent nicking the underlying shielding or fiber optic. Loosen the jacket and pull it back, then finish cutting it off circumferentially.

Separate the conductors, measure and mark them for the creepage distance, and the lugs. Removal of the extruded insulation shield (EIS) is next. The tenacious bond between the insulation and extruded semi-conducting insulation shield can be broken with the use of heat. After making two or three longitudinal cuts 90% through the EIS, heat one strip with a torch until it smokes. Grip the very end of the strip with pliers. (Do not clamp down on the insulation) Pull the strip off right away. Repeat on the next strip. After the proper length of semi-con rubber is removed, clean the insulation surface and install the stress relief according to kit manufacturer's instructions. Cut, pencil and remove the insulation plugs at the end just prior to lug installation.

If there is a ground check wire in the cable, but the ground check circuit is not used, the yellow insulated ground check wire should be connected with the ground conductors.

# SPLICE

Any splice that is made must have all components (conductors, grounds, ground check and Aramid fibers) of the cable rebuilt and in their original factory helix. After removal of the damaged area, mark the length of jacket to be stripped based on the instructions in the splicing kit. Take off 10 to 12 inches extra jacket on each end to facilitate rebuilding the helix of the Aramid ropes.

Cut the outer jacket into 5 or 6 equal width strips down the length of the cable. Make a shallow 360 degree cut at the end of the section to be stripped. Do not cut into the Aramid ropes. Heat one strip until it becomes extremely hot, but does not ignite. Using pliers or hoof-nippers, grip the outer jacket at the open end and pull steadily and evenly toward the opposite end. (Be patient. This is also a very tenacious bond.) Repeat until all ropes are exposed. Note and measure the helix of the ropes. Pull the ropes back and tape them down. Carefully strip the inner jacket without nicking any components. Make the splice in the conductors according to kit instructions. All layers of the conductor must be rebuilt, including the semi-conductive shield. The ground wires must also be covered with semi-conductive material.

Next, use rubber jacketing tape to build up approximately 30 mils of inner jacket. Rebuild the helix of the Aramid ropes one at a time. Slide the sleeves (see below) onto one rope and match it with its opposite rope. Slide the other rope into the sleeves also. Tension this pair of ropes and mark the rope end locations. Bend the cable in a U-shape to make room for the crimping tool and make the crimps. Make sure the tension in each of the ropes is the same and the sleeves are staggered along the length of the splice.

After the conductors, grounds and Aramid ropes are rebuilt and spliced, use the rubber jacketing tape to build up the outer jacket to the original diameter.

Sometimes, getting the most life out of your cables means making repairs.

A few extra minutes spent in cable repair can save hours of costly downtime.

Our field reps can conduct on-site training (all shifts) on the correct way to splice cables to extend their service life.

# TECHNICAL GUIDE

## MECHANICAL DE-RATING

The splicing procedure shown here can be used to repair damaged cables and return them to their original electrical performance but there will be some loss in physical properties. Cables spliced by this procedure should have their maximum tensile force de-rated by a factor of 0.10. Some loss in flexibility will also occur.

## FIBER OPTICS

Splicing procedures for fiber optics have not resulted in splices that give acceptable service life in dynamic reeling applications. For this reason, Nexans AmerCable does not recommend splicing the optical fibers.

## AWG/Metric Cross Reference

| AWG/ kcmil Size | Area of AWG/kcmil in mm | Nearest Standard Metric Cond. mm |
|---|---|---|
| 22 | 0.35 | 0.50 |
| 20 | 0.52 | 0.50 |
| 18 | 0.82 | 1.00 |
| 16 | 1.31 | 1.50 |
| 14 | 2.08 | 2.50 |
| 12 | 3.31 | 4 |
| 10 | 5.26 | 6 |
| 8 | 8.37 | 10 |
| 6 | 13.30 | 16 |
| 4 | 21.15 | 25 |
| 2 | 33.62 | 35 |
| 1 | 42.41 | 50 |
| 1/0 | 53.49 | 50 |
| 2/0 | 67.43 | 70 |
| 3/0 | 85.01 | 95 |
| 4/0 | 107.2 | 120 |
| 250 | 126.7 | 120 |
| 300 | 152.0 | 150 |
| 350 | 177.3 | 185 |
| 400 | 202.7 | 240 |
| 500 | 253.4 | 240 |
| 600 | 304.0 | 300 |
| 750 | 380.0 | 400 |
| 800 | 405.4 | 400 |
| 1000 | 506.7 | 500 |
| 1250 | 633.4 | 630 |

### Derating Factors

| No. of Layers | 1* | 2 | 3 | 4 |
|---|---|---|---|---|
| Correction Factor | 0.85 | 0.65 | 0.45 | 0.35 |

*Derating factor for ventilated monospiral reels is 0.85. Derating factor non-ventilated monospiral reels is 0.75.

| Ambient (°F) | 50 | 68 | 86 | 104 | 122 |
|---|---|---|---|---|---|
| Temp. (°C) | 10 | 20 | 30 | 40 | 50 |
| Correction Factor | 1.14 | 1.07 | 1.00 | 0.91 | 0.82 |

# REELING CABLES

**Nexans AmerCable** manufactures high quality jacketed electrical cables for a wide variety of specialized industrial applications.

**Nexans AmerCable** is an ISO 9001 certified cable manufacturer that combines leading-edge technology, proven manufacturing techniques, and high quality service to deliver the finest cable products available.

Nexans AmerCable serves a worldwide customer base from our manufacturing facility in El Dorado, Arkansas. Our professional field engineering and sales force work in partnership with our network of independent distributors to identify and fulfill your specific cable requirements.

## What can you expect from Nexans AmerCable?

- High Quality Cable
- Shortest Lead Times in the cable industry
- On Time Delivery
- Professional Sales, Support and Service
- Strategic Inventory Locations
- Operational Excellence

Made in America

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