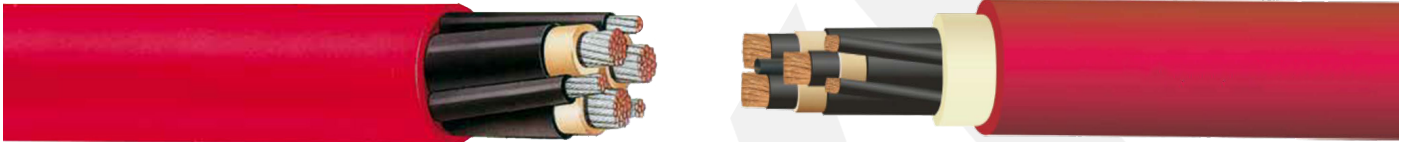




Medium Voltage Mining Cables

- (N)TSCGEWÖU (SB) 6/10kV Trailing Cables Acc. DIN/VDE
- (N)TSCGEWÖU (SMK) 3.6/6 and 6/10kV Trailing Cables Acc. DIN/VDE
- FLEXIBLE POWER CABLES FOR COAL MINES From 1.8kV up to 11kV Acc. DIN/VDE
 - TYPE 321 1.9/3.3kV Cables Acc. BS 6708
 - TYPE 331 1.9/3.3kV Cables Acc. BS 6708
 - TYPE 621 3.8/6.6kV Cables Acc. BS 6708
 - TYPE 630, TYPE 631 3.8/6.6kV Cables Acc. BS 6708
 - TYPE 730 3.8/6.6kV Cables Acc. BS 6708
 - TYPE 830 6.35/11kV Cables Acc. BS 6708
 - TYPE 307 1.9/3.3kV Cables Acc. BS 6708
 - TYPE 307M 1.9/3.3kV Cables Acc. BS 6708
 - TYPE 307S 1.9/3.3kV Cables Acc. BS 6708
 - TYPE 209 From 3.3kV up to 11kV Cables Acc. AS/NZS 1802
 - TYPE 240 From 3.3kV up to 11kV Cables Acc. AS/NZS 1802
 - TYPE 241 From 3.3kV up to 11kV Cables Acc. AS/NZS 1802
 - TYPE 241 3.3/3.3 and 6.6/6.6kV SUPERFLEX Cables Acc. AS/NZS 1802
 - TYPE 245 3.3/3.3 and 6.6/6.6kV Cables Acc. AS/NZS 1802
 - TYPE 260 From 3.3kV up to 11kV Cables Acc. AS/NZS 1802
 - TYPE 409 From 3.3kV up to 22kV Cables Acc. AS/NZS 2802
 - TYPE 440 From 3.3kV up to 22kV Cables Acc. AS/NZS 2802
 - TYPE 441(CLASS 1) From 3.3kV up to 22kV Cables Acc. AS/NZS 2802
 - TYPE 450 From 3.3kV up to 22kV Cables Acc. AS/NZS 2802
 - TYPE 455 From 3.3kV up to 22kV Cables Acc. AS/NZS 2802

(N)TSCGEWÖU (SB) 6/10kV TRAILING CABLES Acc. DIN/VDE



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 200°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: DIN/VDE 0250-813

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire
DIN VDE 0295

Separator: Semiconducting layer over power conductors and earth conductors

Insulation: Phase cores are insulated with 3G13 compound (acc. to DIN VDE 0207 part 20). Earth cores are not insulated

Separator: Semiconducting layer over phase core insulations

Layup: All cores are laid up in contact with each other and interstitial ground cores

Outer Sheath: Heavy duty elastomer outer sheath 5GM5 (acc. to DIN VDE 0207 Teil 21)

CODE of CABLE

- (N)TSCGEWÖU (SB)

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

These cables can be used in dry, damp and wet places, externally, in opened mines, resistant to friction and rubbing needed plants, inside tunnels, in stone houses, in where heavy mechanical effects exist.

SECTION RANGE

- From 25mm² up to 120mm²

CONDUCTOR QUANTITY

- Three phase cores and three interstitial earth cores laid up together. Cable has heavy-duty inner and outer sheath.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

(N)TSCGEWÖU (SMK) 3.6/6 - 6/10kV TRAILING CABLES Acc. DIN/VDE STANDARD



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 200°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: DIN/VDE 0250-813

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire
DIN VDE 0295

Separator: Semiconducting layer over power conductors and earth conductors

Insulation: Phase cores are insulated with 3G13 compound (acc. to DIN VDE 0207 part 20). Earth cores are not insulated

Separator: Semiconducting layer over phase core insulations

Layup: All cores are laid up in contact with each other and interstitial ground cores

Bedding: Special elastomeric compound GM1b (acc. to DIN VDE 0207 Teil 21)

Separator: Open weave braid for reinforcement

Outer Sheath: Heavy duty elastomer outer sheath 5GM5 (acc. to DIN VDE 0207 Teil 21)

CODE of CABLE

- (N)TSCGEWÖU (SMK)

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

These cables can be used in used in dry, damp and wet places, externally, in where heavy mechanical effects exist, in mines, in lift and transfer rolled trolley systems and similar machines as trailing and feeding cables.

SECTION RANGE

- From 25mm² up to 120mm²

CONDUCTOR QUANTITY

- Three phase cores and three interstitial earth cores laid up together. Cable has heavy-duty inner and outer sheath and open weave braid reinforcement layer.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

FLEXIBLE POWER CABLES FOR COAL MINES

From 1.8kV up to 11kV Acc. DIN/VDE



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 200°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: DIN/VDE 0250-813

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire
DIN VDE 0295

Separator: Separating tape over phase and pilot conductors

Insulation: Phase cores are insulated with 3Gl3 compound
(acc. to DIN VDE 0207 part 20). Earth cores are not insulated

Separator: Coloured Textile tape for core identification
(except for earth conductors)

Screen: Tinned copper/ Nylon braided screen over phase
cores. Pilot core is not screened

Layup: All cores are laid up in contact with each other and
interstitial ground conductors and pilot core

Bedding: Special elastomeric compound GM1 b (acc. to DIN
VDE 0207 Teil 21)

Screen: Semi conductive tape and tinned copper wire braided
overall screen

Separator: Textile type

Outer Sheath: Heavy duty elastomer outer sheath 5GM5
(acc. to DIN VDE 0207 Teil 21)

CODE of CABLE

- ARMAFLEX

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Used in dry, damp and wet places, externally, in where heavy mechanical effects exist, in mines, in lift and transfer rolled trolley systems and similar machines as trailing and feeding cables

SECTION RANGE

- From 25mm² up to 185mm²

CONDUCTOR QUANTITY

- Three individually screened phase cores, one pilot core and two bare earth conductors in the intersections laid up together. Contains an overall screen made of semi conductive tape and tinned copper wire braid.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 321 1.9/3.3kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 85°C
- Max. Short Circuit Temperature: (max. 5 sec.) 200°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR

Layup: All cores are laid up in contact with each other

Bedding: Rubber based bedding compound

Armour: Galvanized steel pliable armour

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 321

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

These cables can be used for supplying excavating, crushing machines and equipment. Can also be used as trailing cable in quarries. These cables are safe to used in deep mines where explosive gasses and dust can accumulate and on surface.

SECTION RANGE

- From 35mm² up to 120mm²

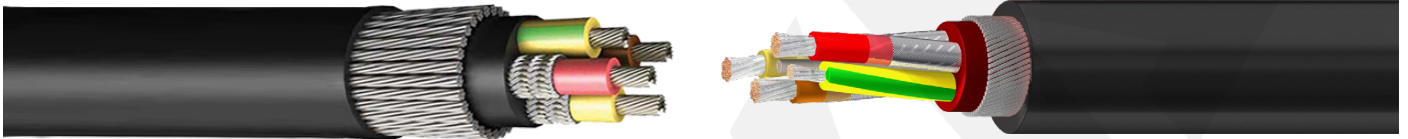
CONDUCTOR QUANTITY

- Three phase cores and one earth core, all unscreened, laid up around an elastomeric cradle without contacting each other. Cable has pliable armour in between inner and outer sheaths.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 331 1.9/3.3kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire
DIN VDE 0295

Insulation: EPR

Screen: Tinned copper/ Nylon braided screen over phase cores. Ground core is not screened

Layup: All cores are laid up in contact with each other

Bedding: Rubber based bedding compound

Armour: Galvanized steel pliable armour

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 331

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Used in dry, damp and wet places, externally, in where heavy mechanical effects exist, in mines, in lift and transfer rolled trolley systems and similar machines as trailing and feeding cables

SECTION RANGE

- From 25mm² up to 120mm²

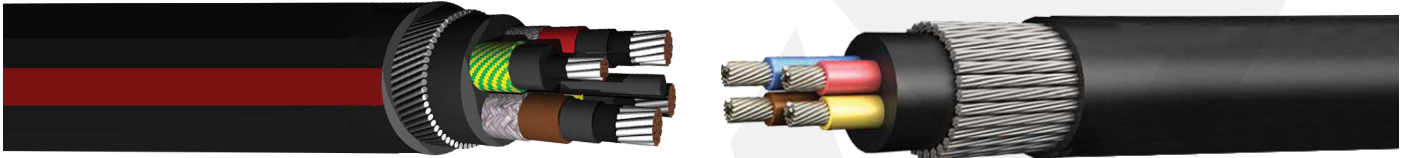
CONDUCTOR QUANTITY

- Three phase cores, all with composite individual screens and one unscreened earth core laid up in contact with each other. Cable has pliable armour in between inner and outer sheaths.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 621 3.8/6.6kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR

Layup: All cores are laid up in contact with each other

Bedding: Rubber based bedding compound

Armour: Galvanized steel pliable armour

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 621

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 621 cables are trailing cables with pliable galvanized steel wire armouring for heavy-duty equipment. Excavating, crushing machines, and equipment may all benefit from these cables. These cables are suitable for usage both underground and on the surface, where explosive gases and dust might gather.

SECTION RANGE

- From 35mm² up to 150mm²

CONDUCTOR QUANTITY

- Three phase cores and one pilot core, all unscreened, laid up in contact with each other. Cable has pliable armour in between inner and outer sheaths.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 630, TYPE 631 3.8/6.6kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR

Layup: Tinned copper/ Nylon braided screen over phase cores.

Ground core in Type 631 is not screened

Bedding: Rubber based bedding compound

Armour: Galvanized steel pliable armour

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 630, TYPE 631

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 630 and type 631 cables are pliable galvanized steel wire armouring for heavy-duty equipment. Excavating, crushing machines, and equipment may all benefit from these cables. These cables are suitable for usage both underground and on the surface, where explosive gases and dust might gather.

SECTION RANGE

- From 35mm² up to 150mm²

CONDUCTOR QUANTITY

- Three phase cores, all with composite individual screens and one unscreened earth (only in type 631) core laid up in contact with each other. Cable has pliable armour in between inner and outer sheaths.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 730 3.8/6.6kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: All cores are laid up around the bare copper earth core and in contact with each other

Bedding: Rubber based bedding compound

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 730

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 730 cables are used as trailing cables for supplying large machines. These cables are ideal for use in both deep mines and on the surface, where explosive gases and dust might gather.

SECTION RANGE

- From 35mm² up to 150mm²

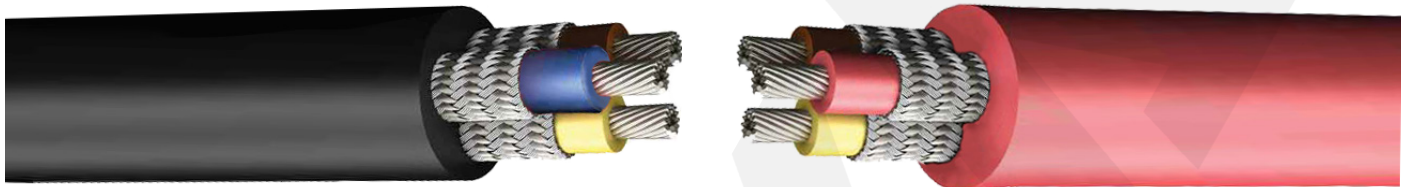
CONDUCTOR QUANTITY

- Three cores, all with composite individual screens laid up in contact with each other. Large cross-section types have central earth conductor as well.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 830 6.35/11kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: All cores are laid up around the bare copper earth core and in contact with each other

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 830

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Trailing cables of type 830 are used to feed huge equipment as trailing cables. These cables are suitable for usage in deep mines as well as on the surface, where explosive gases and dust may accumulate.

SECTION RANGE

- From 50mm² up to 150mm²

CONDUCTOR QUANTITY

- Three cores, all with composite individual screens laid up in contact with each other. Large cross-section types have central earth conductor as well.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 307 1.9/3.3kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR (Ground core is not insulated)

Separator: Coloured Textile tape for core identification

Screen: Tinned copper/ Nylon braided screen over phase cores. Pilot core is not screened

Layup: All cores are laid up in contact with the bare copper earth conductor

Bedding: Rubber based bedding compound

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 307

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 307 cables are used in underground mining applications for fixed installation and flexible operation as power supply cables to motors, distribution boards, and other devices. The cables are utilized in cable chains (cable handlers) and other face equipment with coal cutters.

SECTION RANGE

- From 25mm² up to 150mm²

CONDUCTOR QUANTITY

- Three phase cores with composite individual screens and one unscreened pilot core laid up in contact with each other and the bare earth conductor in the centre.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 307M 1.9/3.3kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR (Ground core is not insulated)

Separator: Coloured Textile tape for core identification

Screen: Tinned copper/ Nylon braided screen over phase and pilot cores

Layup: All cores are laid up in contact with the bare copper earth conductor

Bedding: Rubber based bedding compound

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 307M

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 307M cables are used for fixed installation and flexible operation as power supply cables to motors, distribution boards, etc., in underground mining applications. The cables are used with coal cutters in cable chains (cable handlers) and similar face equipment.

SECTION RANGE

- From 25mm² up to 240mm²

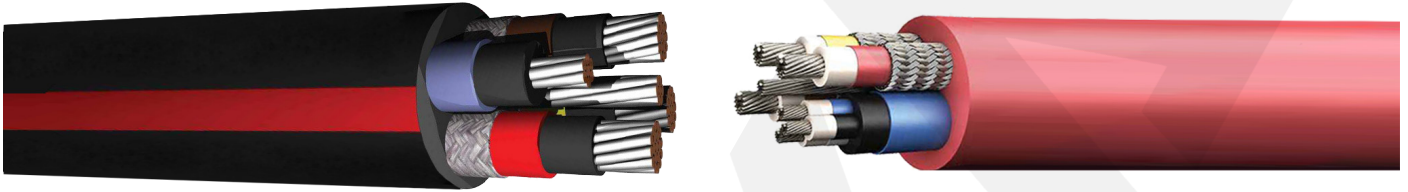
CONDUCTOR QUANTITY

- Three phase cores and one pilot core all with composite individual screens laid up in contact with each other and the bare earth conductor in the centre.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 307S 1.9/3.3kV CABLES Acc. BS 6708



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: BS 6708

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 5 copper wire IEC 60228

Insulation: EPR (Ground core is not insulated)

Separator: Coloured Textile tape for core identification

Screen: Tinned copper/ Nylon braided screen over phase cores. Pilot core is not screened

Layup: All cores are laid up in contact with the bare copper earth conductor.

Bedding: Rubber based bedding compound

Outer Sheath: Heavy duty chloroprene outer sheath

CODE of CABLE

- TYPE 307S

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 307S cables are suitable for fixed installation and flexible operation as power supply cables to excavating, crushing machines and equipment, etc., in deep mines where explosive gasses and dust can accumulate and on surface. The cables are used with coal cutters in cable chains and similar face equipment.

SECTION RANGE

- From 50mm² up to 240mm²

CONDUCTOR QUANTITY

- Three phase cores with composite individual screens and one unscreened pilot unit with three thinner cores laid up in contact with each other and the bare earth conductor in the centre.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 209 From 3.3kV up to 11kV CABLES Acc. AS/NZS 1802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 1802

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2. 70

Separator: Semiconducting layer (3.3/3.3kV and above)

Insulation: R-EP-90 (acc. to AS/NZS 3808)

Separator: Semiconducting layer (3.3/3.3kV and above)

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: Cores are laid up over a semiconducting cradle with one pilot core in the center and without contacting each other

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 209

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 209 cables are robust flexible cables primarily designed for underground coal mines. However, many of these are also suitable for other applications requiring a heavy duty flexible cable, like surface mines, wharf cranes, etc.

SECTION RANGE

- From 16mm² up to 300mm²

CONDUCTOR QUANTITY

- Three phase cores with composite screens laid up around a semi conductive cradle containing a central pilot core.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 240 From 3.3kV up to 11kV CABLES Acc. AS/NZS 1802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 1802

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2. 70

Separator: Semiconducting layer (3.3/3.3kV and above)
(Except for pilot cores)

Insulation: R-EP-90 (acc. to AS/NZS 3808)

Separator: Semiconducting layer (3.3/3.3kV and above)
(Except for pilot cores)

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: Cores are laid up over a semiconducting cradle without contacting each other, but in contact with interstitial pilot cores

Outer Sheath: Heavy-duty elastomer outer sheath
(acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 240

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 240 cables are used as flexible feeder cable to machinery or long wall supply and other industrial applications within the mining industry. It can be used in mines where explosive gasses and dust can accumulate.

SECTION RANGE

- From 16mm² up to 300mm²

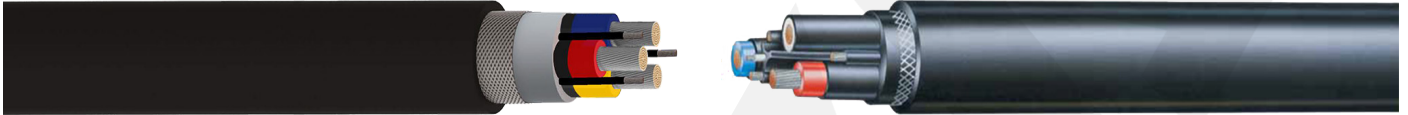
CONDUCTOR QUANTITY

- Three phase cores with composite screens and 3 interstitial pilot cores laid up around a semi conductive cradle for support and protection of power cores

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 241 From 3.3kV up to 11kV CABLES Acc. AS/NZS 1802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 1802

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2.10

Separator: Semiconducting layer over power conductors (3.3/3.3kV and above) and earth conductors (all)

Insulation: Power and pilot cores are insulated with R-EP-90 (acc. to AS/NZS 3808). Earth cores are not insulated

Separator: Semiconducting layer over power core insulations

Layup: Cores are laid up over a semiconducting cradle with one pilot core in the center and without contacting each other but in contact with interstitial earth cores

Bedding: Semiconducting elastomeric compound

Separator: Open weave braid for reinforcement

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 241

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 241 cables are generally used for underground coal mines (except for shuttle cars) and used include mine power feeder cable for continuous miners, pump cable and power supply cable. It can be used in mines where explosive gasses and dust can accumulate.

SECTION RANGE

- From 16mm² up to 300mm²

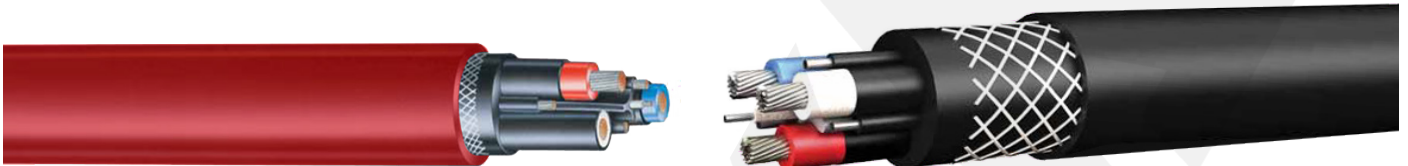
CONDUCTOR QUANTITY

- Three phase cores and three interstitial earth cores laid up around a semi conductive cradle containing a central pilot core. All cores are screened by semi conductive filler as well. Contains open weave braid reinforcement layer.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 241 SUPERFLEX From 3.3kV up to 11kV CABLES Acc. AS/NZS 1802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 1802

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2.10

Separator: Semiconducting layer over power conductors (3.3/3.3kV and above) and earth conductors (all)

Insulation: Power and pilot cores are insulated with R-EP-90 (acc. to AS/NZS 3808). Earth cores are not insulated

Separator: Semiconducting layer over power core insulations

Layup: Cores are laid up over a semiconducting cradle with one pilot core in the center and without contacting each other but in contact with interstitial earth cores

Bedding: Semiconducting elastomeric compound

Separator: Open weave braid for reinforcement

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 241 SUPERFLEX

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

These cables are similar to Type 241 cables, except more flexible and have a smaller 'natural' bending radius, suitable for use as monorail cable where cable loops will be narrower, thus allowing more space for other equipment and reducing opportunities for getting snagged.

SECTION RANGE

- From 70mm² up to 240mm²

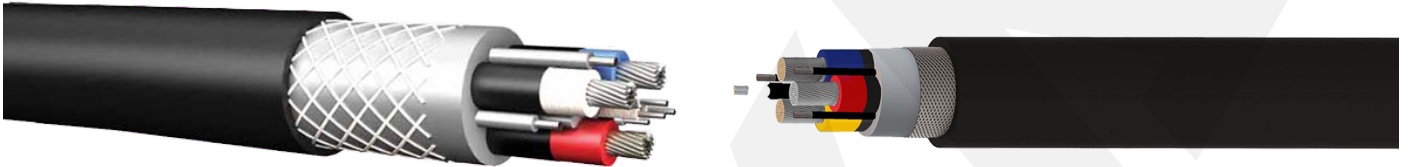
CONDUCTOR QUANTITY

- Three phase cores with composite individual screens and one unscreened pilot unit with three thinner cores laid up in contact with each other and the bare earth conductor in the centre.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 245 3.3/3.3kV and 6.6/6.6kV CABLES Acc. AS/NZS 1802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 1802

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 6 copper wire
AS/NZS 7 725

Separator: Semiconducting layer over power conductors
3.3/3.3kV and above types and over earth conductors of all
types

Insulation: Power and pilot cores are insulated with R-EP-90
(acc. to AS/NZS 3808). Earth cores not insulated

Separator: Semiconducting layer over power core insulations

Layup: Cores are laid up over a semiconducting cradle with
one pilot core in the center and without contacting each other,
but in contact with interstitial earth cores

Bedding: Semiconducting elastomeric compound

Separator: Open weave braid for reinforcement

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/
NZS 3808)

CODE of CABLE

- TYPE 245

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 245 cables are mainly used as long wall shearer cables, and also for continuous miners and peripheral long wall cables. The cable has 3 central pilots for earth continuity monitoring and for control circuits.

SECTION RANGE

- From 50mm² up to 150mm²

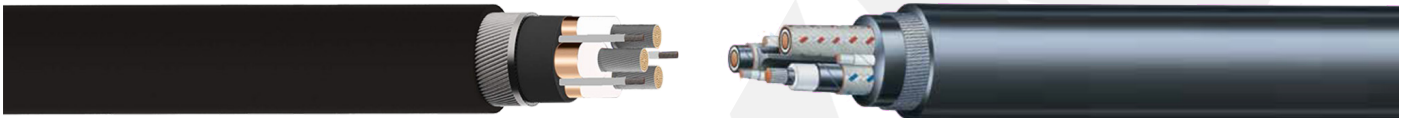
CONDUCTOR QUANTITY

- Three phase cores and three interstitial earth cores laid up around a semi conductive cradle containing a central pilot core. All cores are screened by semi conductive filler as well. Contains open weave braid reinforcement layer.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 260 From 3.3kV up to 11kV CABLES Acc. AS/NZS 1802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 1802

CONSTRUCTION

Conductor: Electrolytic stranded tinned Class 6 copper wire
AS/NZS 1125

Separator: Semiconducting layer over power conductors
(3.3/3.3kV and above) and earth conductors
(Except for pilot cores)

Insulation: R-EP-90 (acc. to AS/NZS 3808)

Separator: Semiconducting layer (3.3/3.3kV and above)
(Except for pilot cores)

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: Cores are laid up over a semiconducting cradle without
contacting each other, but in contact with interstitial pilot cores

Bedding: Elastomeric compound

Separator: Galvanized steel pliable armour
(acc. to AS/NZS 3863)

Outer Sheath: Heavy-duty elastomer outer sheath
(acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 260

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 260 cables can be used as supply cable where mechanical protection and strength is required. May be used as a feeder cable to machinery and suitable for sand mining operations.

SECTION RANGE

- From 16mm² up to 300mm²

CONDUCTOR QUANTITY

- Three phase cores with composite screens and three interstitial pilot cores laid up around a semi conductive cradle for support and protection of power cores. Supported with a flexible armour made of galvanized steel wires.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 409 From 3.3kV up to 22kV CABLES Acc. AS/NZS 2802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 2802:2000, AS/NZS 1125 AS/NZS 3808, AS/NZS 5000.1

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2. 70

Separator: Semiconducting layer over power cores in 3.3/3.3kV and above types

Insulation: R-EP-90 (Class 2, acc. to AS/NZS 3808)

Separator: Semiconducting layer (3.3/3.3kV and above)

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: Cores are laid up over a semiconducting cradle with one pilot core in the center and without contacting each other

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 409

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 409 cables are used as flexible feeder cable to machinery. More suitable as a trailing cable. Larger cables for power supply to drag lines, shovels and drills. Smaller sizes used for drills, held hand tools and equipment.

SECTION RANGE

- From 16mm² up to 300mm²

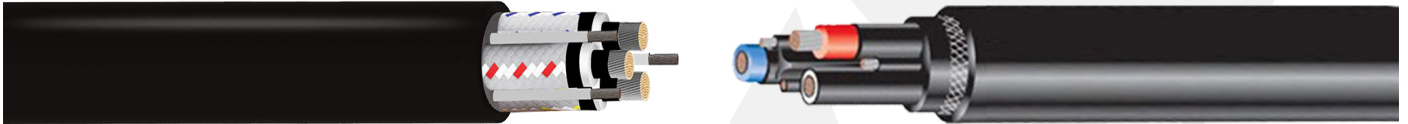
CONDUCTOR QUANTITY

- Three phase cores and three interstitial earth cores laid up around a semi conductive cradle containing a central pilot core.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 440 From 3.3kV up to 22kV CABLES Acc. AS/NZS 2802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 2802:2000, AS/NZS 1125 AS/NZS 3808, AS/NZS 5000.1

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2. 70

Separator: Semiconducting layer over power cores in 3.3/3.3kV and above types

Insulation: R-EP-90 (Class 2, acc. to AS/NZS 3808)

Separator: Semiconducting layer (3.3/3.3kV and above) (Except for pilot cores)

Screen: Tinned copper/ Nylon braided screen over phase cores

Layup: Cores are laid up over a semiconducting cradle without contacting each other, but in contact with interstitial pilot cores

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 440

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 440 cables used for power supply to machinery and equipment. For use where three pilot cores are required. Larger cables for power supply to drag lines, shovels and drills. Smaller sizes used for drills, held hand tools and equipment.

SECTION RANGE

- From 16mm² up to 300mm²

CONDUCTOR QUANTITY

- Three phase cores and three interstitial pilot cores laid up around a semi conductive cradle for support and protection of power cores.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 441 (Class 1) From 3.3kV up to 22kV CABLES Acc. AS/NZS 2802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 2802:2000, AS/NZS 1125 AS/NZS 3808, AS/NZS 5000.1

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2.10

Separator: Semiconducting layer over power conductors and earth conductors

Insulation: Power and pilot cores are insulated with XR-EP-90 (Class 1, acc. to AS/NZS 3808). Earth cores not insulated

Separator: Semiconducting layer over power core insulations

Layup: Cores are laid up over a semiconducting cradle with one pilot core in the center and without contacting each other, but in contact with interstitial earth cores

Bedding: Semiconducting elastomeric compound

Separator: Open weave braid for reinforcement

Outer Sheath: Heavy-duty elastomer outer sheath (acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 441(Class 1)

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 441 (Class 1) cables are suitable for trailing applications for drag lines, shovels, and drills and also suitable for reeling applications. These cables can be used in underground and open mines.

SECTION RANGE

- From 16mm² up to 300mm²

CONDUCTOR QUANTITY

- Three phase cores and three interstitial earth cores laid up around a semi conductive cradle containing a central pilot core. All cores are screened by semi conductive filler as well. Contains open weave braid reinforcement layer.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 450 From 3.3kV up to 22kV CABLES Acc. AS/NZS 2802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 2802:2000, AS/NZS 1125 AS/NZS 3808, AS/NZS 5000.1

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2. 70

Separator: Semiconducting layer over power and earth conductors

Insulation: XR-EP-90 (Class 1, acc. to AS/NZS 3808)
(Earth cores are not insulated)

Separator: Semiconducting layer

Screen: Tinned copper/ Nylon braid and semi conductive elastomer screen over phase cores

Layup: All phase cores are laid up in contact with each other
Two ground cores and one pilot core are laid up in between

Bedding: Elastomeric compound

Separator: Open weave braid for reinforcement

Outer Sheath: Extra heavy-duty elastomer outer sheath
(acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 450

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 450 cables used for power supply to a wide range applications. For use where two earth and one pilot cores are required. For power supply to drag lines and slow reeling applications where copper screened cables are required.

SECTION RANGE

- From 16mm² up to 300mm²

CONDUCTOR QUANTITY

- Three phase cores, two interstitial earth cores and one pilot core laid up around a cradle. Phase cores are screened by a composite screen and a semi conductive layer. Contains open weave braid reinforcement layer.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.

TYPE 455 From 3.3kV up to 22kV CABLES Acc. AS/NZS 2802



TECHNICAL DATA

- Max. Operating Temperature: 90°C
- Max. Short Circuit Temperature: (max. 5 sec.) 250°C
- Permanent Tensile Force: 15 N/mm²
- Production Standard: AS/NZS 2802:2000, AS/NZS 1125 AS/NZS 3808, AS/NZS 5000.1

CONSTRUCTION

Conductor: Electrolytic multiple-stranded circular flexible tinned copper wire (rope lay) AS/NZS 1125-2.10

Separator: Semiconducting layer over earth conductors

Insulation: XR-EP-90 (Class 1, acc. to AS/NZS 3808)
(Earth cores are not insulated)

Separator: Semiconducting layer

Screen: Semi conductive elastomer screen over phase cores.

Layup: All phase cores are laid up in contact with each other.

Two ground cores and one pilot core are laid up in between

Bedding: Semiconducting elastomeric compound

Separator: Open weave braid for reinforcement

Outer Sheath: Extra heavy-duty elastomer outer sheath
(acc. to AS/NZS 3808)

CODE of CABLE

- TYPE 455

NOTE: These cables should not be installed at temperatures below -40°C or above 80°C

INTRODUCTION

Type 455 cables used for particularly suited to stacker reclaimer applications. Suitable for reeling and trailing applications. For use where two earth and one pilot cores are required.

SECTION RANGE

- From 16mm² up to 300mm²

CONDUCTOR QUANTITY

- Three phase cores, two interstitial earth cores and one pilot core laid up together. Phase cores are screened by a semi conductive layer over insulation. Contains open weave braid reinforcement layer.

COLOUR CODE of CABLE

- Insulation Colour code could be according to the International Standards or customer's request/demand.