



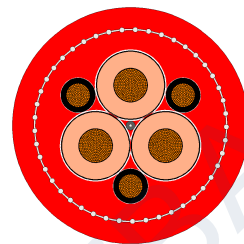
TEBAOFLEX CABLE

## DATA SHEET

Mining&Industrial cable

# (N)TSKCGEWÖU

3.6/6 (7.2) kV medium voltage trailing cable



### APPLICATION

Medium-voltage trailing cable for large material handling machines such as excavators, dumpers and crushers in open-cast mines. Suitable for high mechanical stresses with mono-spiral reels, cylindrical reels and other industrial applications.

### CONSTRUCTION

| Component                | Description                                                                                               |
|--------------------------|-----------------------------------------------------------------------------------------------------------|
| Conductors               | Annealed flexible stranded tin-coated copper, Class 5 to IEC 60228 and HD 383                             |
| Separator                | Semi-conductive tape between conductor and insulation if required                                         |
| Conductor screen         | Semi-conductive layer                                                                                     |
| Insulation               | Ethylene-propylene rubber type 3GI3 to DIN VDE 0207 Part 20                                               |
| Insulation screen        | Semi-conductive layer; maximum resistivity 200 ohm x m                                                    |
| Core cable               | Three power cores, two earth cores and one pilot core laid on cradle separator with central reinforcement |
| Semi-conductive covering | Semi-conductive layer over cable core                                                                     |
| Inner sheath             | Synthetic thermosetting compound type 5GM5 to DIN VDE 0207 Part 21                                        |
| Anti-torsion braid       | Polyamide thread braid between inner and outer sheath                                                     |
| Outer sheath             | Synthetic thermosetting compound type 5GM5; black outer jacket                                            |

### CHARACTERISTICS

- Excellent tear, impact, abrasion and torsion resistance.
- Embossed marking for easy identification.
- Flame retardant, oil resistant, UV, sunlight, ozone and moisture resistant.
- Standard cable packing: 500 m drums; other packing available on request.

### OPERATING CHARACTERISTICS

| Parameter                               | Value                            |
|-----------------------------------------|----------------------------------|
| Voltage rating Uo/U                     | 3.6/6 (7.2) kV                   |
| Temperature range                       | -50 °C to +90 °C                 |
| Fixed installation temperature          | +90 °C / -50 °C                  |
| Maximum conductor operating temperature | 90 °C                            |
| Short-circuit conductor temperature     | 250 °C                           |
| Minimum bending radius                  | 6 x D for fixed installation     |
| Tensile load                            | up to 20 N/mm <sup>2</sup>       |
| Current carrying capacity               | According to DIN VDE 0298 Part 4 |

### STANDARDS

| Parameter             | Value                            |
|-----------------------|----------------------------------|
| Cable standard        | Based on DIN VDE 0250 Part 813   |
| Conductor standard    | IEC 60228, HD 383                |
| Insulation and sheath | DIN VDE 0207 Parts 20 and 21     |
| Oil resistance        | DIN VDE Part 811-2-1 p. 10       |
| Weather resistance    | Ozone, UV and moisture resistant |

# TECHNICAL DATA

Values are technical parameters only. Cable dimensions may vary due to manufacturing tolerances.

| Cross-section<br>mm <sup>2</sup> | Cond. dia.<br>mm | Approx. OD<br>mm | Weight<br>kg/km | DC res.<br>ohm/km | Current<br>A |
|----------------------------------|------------------|------------------|-----------------|-------------------|--------------|
| 3.6/6 kV (N)TSKCGEWÖU            |                  |                  |                 |                   |              |
| 3x25+2x16+2x16                   | 6.30             | 41.80            | 2835            | 0.795             | 132          |
| 3x35+2x16+1x16                   | 7.00             | 44.40            | 3214            | 0.565             | 161          |
| 3x50+2x16+1x16                   | 9.00             | 48.70            | 3922            | 0.393             | 202          |
| 3x70+2x25+1x25                   | 10.80            | 53.70            | 5140            | 0.277             | 251          |
| 3x95+2x25+1x25                   | 13.00            | 59.10            | 6172            | 0.210             | 301          |
| 3x120+2x35+1x35                  | 14.10            | 70.00            | 6750            | 0.164             | 351          |
| 3x150+2x35+1x35                  | 16.00            | 78.00            | 8152            | 0.132             | 405          |
| 3x185+2x50+1x50                  | 18.20            | 82.00            | 9670            | 0.108             | 462          |

## PHYSICAL AND ELECTRICAL PARAMETERS

| Parameter           | Value                               |
|---------------------|-------------------------------------|
| Tensile strength    | min. 15 N/mm <sup>2</sup>           |
| Elongation at break | min. 300%                           |
| Ageing in air oven  | 100 °C, 168 h; TS +/-30%, EB +/-40% |
| Ageing in oil       | 100 °C, 24 h; TS and EB +/-40%      |
| Tear resistance     | min. 30 N/mm                        |

| Parameter           | Value                                          |
|---------------------|------------------------------------------------|
| Ambient temperature | 20   25   30   35   40   45   50 °C            |
| Conversion factor   | 1.09   1.05   1.00   0.92   0.88   0.83   0.78 |

Voltage tests shall be performed according to DIN VDE 0250 Part 813. Partial discharge max. 20 pC.

## CERTIFICATIONS



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