



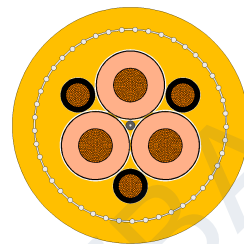
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

(N)TSCGEWÖU-ATB

3.6/6 kV and 6/10 kV anti-torsion reeling cable



APPLICATION

Flexible cable for the energy supply to heavy mobile equipment such as draglines, shovels, dredges, drills and other moving machinery operating in opencast mines and demanding industrial sites. Designed for trailing and reeling duty under severe mechanical stress, abrasion and frequent movement. Suitable for indoor and outdoor applications where reliable medium-voltage power supply and anti-torsion performance are required.

CONSTRUCTION

Component	Description
Phase conductor	Class 5 tinned copper conductor
Insulation	Rubber compound
Semi-conductive layers	Semi-conductive tape over the conductor, plus inner and outer semi-conductive rubber layers on the insulation
Earth conductor	Class 5 tinned copper conductor
Central filler	Semi-conductive compound on a textile polyester support
Inner sheath	Rubber compound
Anti-Torsion Braid	Polyester braid between the inner and outer sheath
Outer sheath	Abrasion resistant rubber compound
Sheath colour	Yellow

CHARACTERISTICS

- Flexible medium-voltage trailing and reeling cable for opencast mining equipment.
- Anti-torsion braid supports frequent movement and torsional stress.
- Flame retardant according to IEC/EN 60332-1-2.
- Abrasion resistant rubber sheath for demanding operating conditions.

OPERATING CHARACTERISTICS

Parameter	Value
Voltage rating U_0/U	3.6/6 kV; 6/10 kV
Test voltage	11 kV for 3.6/6 kV; 17 kV for 6/10 kV
Ambient temperature	Fixed -40 °C to +90 °C; flexed -25 °C to +90 °C
Maximum short circuit temperature	+250 °C
Minimum bending radius	6 x overall diameter fixed; 10 x overall diameter flexed

STANDARDS

Parameter	Value
Cable standards	VDE 0250 Part 813, VDE 0295, EN 60228
Flame retardant	IEC/EN 60332-1-2
Regulatory compliance	RoHS Directive ; REACH EC

PACKING

Standard length cable packing on drums; other packing and delivery forms available on request.

TECHNICAL DATA

DIMENSIONS

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

Voltage kV	Cores	Phase mm2	Earth mm2	Cond. dia. mm	Min OD mm	Max OD mm	Tensile N	Weight kg/km
3.6/6	3+3	25	25/3E	6.8	39.9	41.6	1500	2390
3.6/6	3+3	35	25/3E	7.8	42.9	44.6	2100	2970
3.6/6	3+3	50	25/3E	9.4	46.0	47.7	3000	3600
3.6/6	3+3	70	35/3E	11.2	49.8	51.6	4200	4600
3.6/6	3+3	95	50/3E	12.7	55.8	57.6	5700	5800
3.6/6	3+3	120	70/3E	14.4	59.6	61.4	7200	7070
3.6/6	3+3	150	70/3E	16.3	66.0	68.3	9000	8870
3.6/6	3+3	185	95/3E	17.6	67.9	70.2	11100	9980
6/10	3+3	25	25/3E	6.8	39.9	42.2	1500	2430
6/10	3+3	35	25/3E	7.8	42.9	45.2	2100	3010
6/10	3+3	50	25/3E	9.4	46.0	48.3	3000	3640
6/10	3+3	70	35/3E	11.2	49.8	52.2	4200	4640
6/10	3+3	95	50/3E	12.7	55.8	58.2	5700	5900
6/10	3+3	120	70/3E	14.4	59.6	62.1	7200	7160
6/10	3+3	150	70/3E	16.3	66.0	69.0	9000	8970
6/10	3+3	185	95/3E	17.6	67.9	70.9	11100	10120

CURRENT CARRYING CAPACITY

Area mm2	Floor A	Air A	1 layer	2 layer	3 layer	4 layer	5 layer	6 layer	7 layer
25	131	138	105	80	64	55	50	35	29
35	162	170	130	99	79	68	62	44	36
50	202	212	162	123	99	85	77	55	44
70	250	263	200	153	123	105	95	68	55
95	301	316	241	184	147	126	114	81	66
120	352	370	282	215	172	148	134	95	77
150	404	424	323	246	198	170	154	109	89
185	461	484	369	281	226	194	175	124	101

Ambient temperature of 30 °C.

VOLTAGE DROP

Area mm2	PF 0.7	PF 0.8	PF 0.9	PF 1.0
25	1.29	1.45	1.6	1.71
35	0.95	1.06	1.16	1.23
50	0.69	0.77	0.83	0.87
70	0.51	0.56	0.6	0.61
95	0.41	0.45	0.47	0.47
120	0.34	0.36	0.38	0.36
150	0.29	0.31	0.32	0.29
185	0.25	0.27	0.27	0.24

ELECTRICAL DATA

DE-RATING FACTORS

Ambient temp.	10°C	15°C	20°C	25°C	30°C	35°C	40°C	45°C	50°C	55°C	60°C	65°C	70°C	75°C	80°C
De-rating factor	1.15	1.12	1.08	1.04	1.00	0.96	0.91	0.87	0.82	0.76	0.71	0.65	0.58	0.50	0.41

NOTES

- Current carrying capacity values are stated for the operating conditions shown above.
- Cable dimensions may vary due to manufacturing tolerances.

CERTIFICATIONS



TEBAOFLEX CABLE