



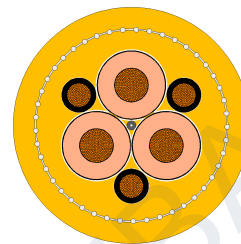
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

(N)TSCGEWÖU-ATB

8.7/15 kV and 12/20 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	8.7/15 kV; 12/20 kV
Test voltage	24 kV for 8.7/15 kV; 29 kV for 12/20 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
8.7/15	3+3	25	25/3E	6.8	44.7	46.4	1500	2800
8.7/15	3+3	35	25/3E	7.8	46.2	47.9	2100	3160
8.7/15	3+3	50	25/3E	9.4	49.4	51.2	3000	3960
8.7/15	3+3	70	35/3E	11.2	55.0	56.8	4200	5020
8.7/15	3+3	95	50/3E	12.7	58.4	60.2	5700	5840
8.7/15	3+3	120	70/3E	14.4	63.9	66.2	7200	7420
8.7/15	3+3	150	70/3E	16.3	68.5	70.9	9000	8620
12/20	3+3	25	25/3E	6.8	47.3	49.0	1500	3340
12/20	3+3	35	25/3E	7.8	48.8	50.6	2100	3690
12/20	3+3	50	25/3E	9.4	53.7	55.5	3000	4640
12/20	3+3	70	35/3E	11.2	57.5	59.3	4200	5720
12/20	3+3	95	50/3E	12.7	60.8	63.1	5700	6660
12/20	3+3	120	70/3E	14.4	66.4	68.7	7200	8200

CURRENT CARRYING CAPACITY

Area mm2	Floor A	1 layer	2 layer	3 layer	4 layer	5 layer	6 layer	7 layer
25	139	111	85	68	58	53	38	31
35	172	138	105	84	72	65	46	38
50	216	173	132	106	91	82	58	48
70	265	212	162	130	111	101	72	58
95	319	255	195	156	134	121	86	70
120	371	297	226	182	156	141	100	82
150	428	342	261	210	180	163	116	94

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

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