



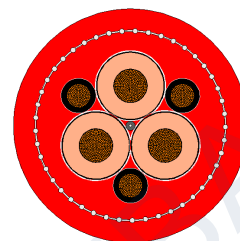
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

(N)TSCGEWÖU

3.6/6 kV, 6/10 kV, 8.7/15 kV and 12/20 kV cable



APPLICATION

Flexible medium-voltage cable for fixed distribution lines in mines and alongside material handling equipment. Suitable for indoor and outdoor applications where robust rubber insulation, mechanical durability and reliable power supply are required.

CONSTRUCTION

Component	Description
Phase conductor	Class 5 flexible stranded 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; ATB version available with anti-torsion construction
Outer sheath	Rubber compound
Sheath colour	Red

CHARACTERISTICS

- Flexible cable for fixed distribution lines in mines and material handling equipment.
- Maximum torsional stress: +/- 25 °/m.
- Maximum working speed: 20 m/min.
- Flame retardant according to IEC/EN 60332-1-2.

OPERATING CHARACTERISTICS

Parameter	Value
Voltage rating U ₀ /U	3.6/6 kV; 6/10 kV; 8.7/15 kV; 12/20 kV
Test voltage	11 kV for 3.6/6 kV; 17 kV for 6/10 kV; 24 kV for 8.7/15 kV; 29 kV for 12/20 kV
Mobile condition	-25 °C to +90 °C
Static condition	-40 °C to +90 °C
Maximum short circuit temperature	+250 °C
Minimum bending radius	6 x overall diameter fixed

STANDARDS

Parameter	Value
Cable standards	VDE 0295, IEC 60228, VDE 0207 Parts 20 & 21, VDE 0250 Part 813
Installation guide	VDE 0298 Part 3
Test standards	IEC 60811-2-1, EN 60228
Flame retardant	IEC/EN 60332-1-2
Regulatory compliance	RoHS Directive ; REACH EC

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	Nom. OD mm	Tensile N	Weight kg/km
3.6/6 kV							
3.6/6	3+3	25	25/3	6.9	39.7	1500	2380
3.6/6	3+3	35	25/3	7.8	43.7	2100	2920
3.6/6	3+3	50	25/3	9.3	46.8	3000	3520
3.6/6	3+3	70	35/3	11.1	50.7	4200	4430
3.6/6	3+3	95	50/3	12.7	56.7	5700	5580
3.6/6	3+3	120	70/3	14.5	60.5	7200	6770
3.6/6	3+3	150	70/3	16.7	67.15	9000	8260
3.6/6	3+3	185	95/3	17.6	69	11100	9400
6/10 kV							
6/10	3+3	25	25/3	6.9	39.7	1500	2380
6/10	3+3	35	25/3	7.8	43.7	2100	2920
6/10	3+3	50	25/3	9.3	46.8	3000	3520
6/10	3+3	70	35/3	11.1	50.7	4200	4430
6/10	3+3	95	50/3	12.7	56.7	5700	5640
6/10	3+3	120	70/3	14.5	60.5	7200	6830
6/10	3+3	150	70/3	16.7	70.3	9000	8320
6/10	3+3	185	95/3	17.6	69	11100	9500
8.7/15 kV							
8.7/15	3+3	25	25/3	6.9	45.5	1500	2860
8.7/15	3+3	35	25/3	7.8	47	2100	3210
8.7/15	3+3	50	25/3	9.3	50.3	3000	3830
8.7/15	3+3	70	35/3	11.1	55.9	4200	5000
8.7/15	3+3	95	50/3	12.7	59.3	5700	5870
8.7/15	3+3	120	70/3	14.5	65	7200	7370
8.7/15	3+3	150	70/3	16.7	69.7	9000	8590
8.7/15	3+3	185	95/3	17.6	71.8	11100	9750
12/20 kV							
12/20	3+3	25	25/3	6.9	47.2	1500	3080
12/20	3+3	35	25/3	7.8	52.6	2100	3460
12/20	3+3	50	25/3	9.3	54.6	3000	4310
12/20	3+3	70	35/3	11.1	58.4	4200	5310
12/20	3+3	95	50/3	12.7	61.9	5700	6180
12/20	3+3	120	70/3	14.5	67.5	7200	7730
12/20	3+3	150	70/3	16.7	72.2	9000	8970

ELECTRICAL DATA

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

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