



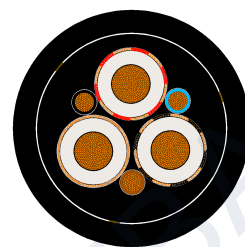
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrial cable

(N)TSCGECECWÖU

8.7/15 kV and 12/20 kV ZH reeling cable



APPLICATION

Flexible cable suitable for reeling drums of tunnel boring machines and general tunnel applications. Suitable for indoor and outdoor applications. Halogen-free sheathed version for demanding mining and industrial environments.

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
Protective earth conductor	Individual copper wire screen
Control conductor	Class 5 tinned copper conductor
Central filler	Semi-conductive compound on a textile polyester support
Inner sheath	Halogen-free compound
Monitoring conductor	Copper wire screen over the inner sheath
Outer sheath	Halogen-free PUR (polyurethane)
Sheath colour	Black

CHARACTERISTICS

- Flexible reeling cable for tunnel boring machines.
- Halogen-free sheathed construction.
- Suitable for indoor and outdoor applications.
- Flame retardant according to IEC/EN 60332-1-2.

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 -50 °C to +90 °C; flexed -25 °C to +90 °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
Halogen free	IEC/EN 60754-1/2
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	Control mm2	Cond. dia. mm	Min OD mm	Max OD mm	Tensile N	Weight kg/km
8.7/15	3+3+3+ÜL	25	25/3E	2.5ST	6.8	48	51.5	1125	3540
8.7/15	3+3+3+ÜL	35	25/3E	2.5ST	7.8	49.5	53.1	1575	3930
8.7/15	3+3+3+ÜL	50	25/3E	2.5ST	9.4	54.4	58.2	2250	4810
8.7/15	3+3+3+ÜL	70	35/3E	2.5ST	11.2	58.2	62.2	3150	5880
8.7/15	3+3+3+ÜL	95	50/3E	2.5ST	12.7	61.4	65.7	4275	6950
12/20	3+3+3+ÜL	25	25/3E	2.5ST	6.8	50.5	54.1	1125	3800
12/20	3+3+3+ÜL	35	25/3E	2.5ST	7.8	52.3	56	1575	4190
12/20	3+3+3+ÜL	50	25/3E	2.5ST	9.4	57.5	61.4	2250	5120
12/20	3+3+3+ÜL	70	35/3E	2.5ST	11.2	61	65.3	3150	6200
12/20	3+3+3+ÜL	95	50/3E	2.5ST	12.7	66.4	70.9	4275	7550

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	53	31
35	172	138	105	84	72	65	65	38
50	216	173	132	106	91	82	82	48
70	265	212	162	130	111	101	101	58
95	319	255	195	156	134	121	121	70

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

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



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