TEBAOFLEX CABLE

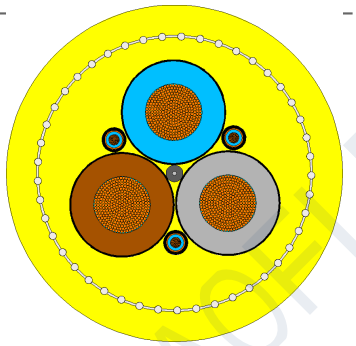
DATA SHEET

Mining&Industrial cable

(N)SSHCGEOEU

0.6/1 kV underground reeling cable

Underground reeling cable for frequently changing dynamic loads in mining applications.



APPLICATION

For frequently changing dynamic loads, such as reeling cables for scoops (LHDs) in underground mines. Suitable for mono-spiral reels and cylindrical reels. High tensile strength is provided by the central reinforcement element, and the outer sheath has very high abrasion and tear resistance.

CONSTRUCTION

Component	Description
Conductor	Tinned electrolytic copper, very finely stranded class FS
PE conductor	Double concentric control / earth wire spinning in outer interstices
Insulation	EPR rubber compound type 3GI3
Core identification	Black, brown and grey
Core arrangement	Three main cores stranded with three control / earth cores in outer interstices
Support element	Central aramid-yarn support element embedded in cradle separator
Inner sheath	EPR rubber compound type GM1B
Torsion protection	Reinforced polyester braid in vulcanized bond between inner and outer sheath; surface covered approx. 25%
Outer sheath	Synthetic elastomer compound type 5GM5, yellow

OPERATING CHARACTERISTICS

Property	Value
Rated voltage Uo/U	0.6/1 kV, also permitted for 640/1140 V
Max. permissible operating voltage AC	0.7/1.2 kV
Max. permissible operating voltage DC	0.9/1.8 kV
AC test voltage	3 kV
AC test voltage, control cores	2 kV
Max. conductor operating temperature	+90 deg C
Max. conductor short-circuit temperature	+250 deg C
Fixed ambient temperature	-40 deg C to +90 deg C
Fully flexible ambient temperature	-25 deg C to +90 deg C
Max. tensile load on conductor	30 N/mm2
Torsional stress	+/- 50 deg/m
Minimum bending radius	4 x D
Minimum distance with S-type directional changes	20 x D
Travel speed	Max. 160 m/min
Additional tests	Reversed bending test, roller bending test

STANDARDS AND TESTS

Item	Standard / property
Construction	Based on DIN VDE 0250 part 812
Performance against fire	IEC 60332-1-2
Resistance to oil	IEC 60811-404
Weather resistance	Outdoor and indoor use, resistant to ozone, UV and moisture

TECHNICAL DATA

DIMENSIONS AND MECHANICAL DATA

Number of cores x cross-section	Conductor diameter max. (mm)	Outer diameter min. (mm)	Outer diameter max. (mm)	Weight (kg/km)	Tensile force max. (N)
3 x 16 + 3 x (1.5 STKON + 10/3 KON)	5.8	31.1	34.4	1820	1440
3 x 25 + 3 x (1.5 STKON + 16/3 KON)	7.3	36.3	39.3	2500	2250
3 x 35 + 3 x (1.5 STKON + 16/3 KON)	8.4	41.2	44.2	2990	3150
3 x 50 + 3 x (1.5 STKON + 25/3 KON)	10.3	44.5	47.5	3800	4500
3 x 70 + 3 x (1.5 STKON + 35/3 KON)	12	47.3	50.3	4500	6300
3 x 95 + 3 x (1.5 STKON + 50/3 KON)	14	54.8	58.8	5300	8550
3 x 120 + 3 x (1.5 STKON + 70/3 KON)	15.8	58.7	62.7	6100	10800

ELECTRICAL DATA

Number of cores x cross-section	Conductor resistance at 20 deg C max. (Ohm/km)	Operating capacitance nom. (uF/km)	Inductance nom. (mH/km)	Current carrying capacity (A)	Short-circuit current conductor (kA)
3 x 16 + 3 x (1.5 STKON + 10/3 KON)	1.24	0.50	0.30	99	2.29
3 x 25 + 3 x (1.5 STKON + 16/3 KON)	0.795	0.52	0.29	131	3.58
3 x 35 + 3 x (1.5 STKON + 16/3 KON)	0.565	0.60	0.28	162	5.01
3 x 50 + 3 x (1.5 STKON + 25/3 KON)	0.393	0.61	0.27	202	7.15
3 x 70 + 3 x (1.5 STKON + 35/3 KON)	0.277	0.70	0.26	250	10.01
3 x 95 + 3 x (1.5 STKON + 50/3 KON)	0.21	0.72	0.26	301	13.59
3 x 120 + 3 x (1.5 STKON + 70/3 KON)	0.164	0.79	0.25	352	17.16

Nominal current carrying capacity is for rubber cables laid on a surface at 30 deg C ambient temperature. For derating factors, use the applicable technical appendix tables.

CERTIFICATIONS

TEBAOFLEX CABLE