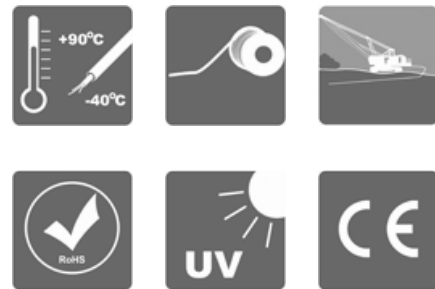
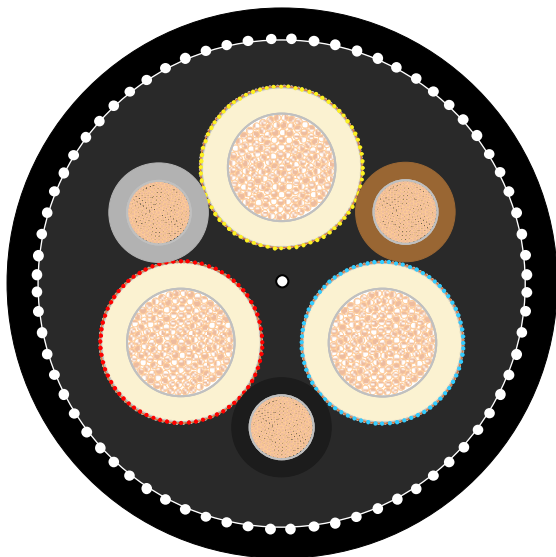


# TYPE 61A 0,64/1,1kV

SANS 1520-1



Flexible copper screened mining cables



## CONSTRUCTION

<b>Cable type</b>	Type 61A 0.64/1.1 kV
<b>Conductors</b>	Flexible class 5 comply to SANS 1411 - 1 from tinned annealed copper wires left lay with semi-conducting rubber screen .
<b>Insulation</b>	Ethylene propylene thermosetting compound type RD 3 comply to SANS 1411-3 and a strippable semi-conducting core screen (triple extruded)
<b>Core of cable</b>	Three tinned copper braided screened power cores and three unscreened pilot cores one in each interstice laid up in the right hand lay around semi-conductive cradle centre (only 16 mm <sup>2</sup> around rubber (RD1) filler centre) .
<b>Inner sheath</b>	Poly-chloroprene thermosetting compound type RS 6 comply to SANS 1411-3 .
<b>Re-enforcement</b>	An open nylon braid . Minimum 16 of nylon strings .
<b>Outer sheath</b>	Poly-chloroprene thermosetting compound type RS 6 comply to SANS 1411-3 .
<b>Colour of sheath</b>	Black .
<b>Tests</b>	SANS 1520-1.
<b>Marking</b>	TF KABLE 3 Texoprene TR 61A (Size) (Voltage) CR SANS 1520-1 (Year)+metre marking

## FEATURES

- Excellent flexibility
- Water resistant and flame retardant
- Operating temperature min. ambient temp . -25 °C , max. conductor temp. 90°C.
- UV ,sunlight , ozone ,oil, resistant
- Embossing marking as per order.

## APPLICATIONS

# TYPE 61A 0,64/1,1kV

SANS 1520-1



- Electrically driven machines , movable electric apparatus in hazardous areas .Not for reeling purposes.
- Other industrial applications .

**Standard length cable packing** : 500m on drums. Other forms of packing and delivery are available on request

Table 1

Physical Properties									
<b>Power cores</b>									
Conductor sizes	(mm <sup>2</sup> )	<b>16</b>	<b>25</b>	<b>35</b>	<b>50</b>	<b>70</b>	<b>95</b>	<b>120</b>	<b>150</b>
Maximum wire diameter	( mm)	0.41	0.41	0.41	0.51	0.51	0.51	0.51	0.51
Approx. conductor diameter	( mm)	5.3	6.8	8.5	10.3	11.9	13.5	15.5	17.3
Maximum screen wire diameter	(mm)	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Braided screen filling factor	(%)	80	80	80	80	80	80	80	80
Approx. summarized screen cross-section for power cores (weighing method)	(mm <sup>2</sup> )	22	25	27	32	37	43	47	52
<b>Pilot cores</b>									
Conductor sizes	( mm <sup>2</sup> )	10	10	16	16	16	16	16	16
Maximum wire diameter	( mm)	0.41	0.41	0.41	0.41	0.41	0.41	0.41	0.41
Approx. conductor diameter	( mm)	4.2	4.2	5.3	5.3	5.3	5.3	5.3	5.3
<b>Lay Ratio</b> (maximum)	(x PCD)	8	8	8	8	8	8	8	8
<b>Cable diameter</b>									
Approx.	(mm)	31	38	43	47	52	58	63	70
<b>Cable mass</b> (approx.)	(kg/m)	1.8	3.1	3.6	4.5	5.6	7.0	8.4	10.2
<b>Minimum bending radius</b>	(mm)	200	240	260	290	320	350	390	430
Maximum recommended tension	(kN)	0.7	1.1	1.6	2.3	3.2	4.3	5.4	6.8

# TYPE 61A 0,64/1,1kV

SANS 1520-1



Table 2

Electrical Properties						
<b>Power cores</b>						
Maximum cond. DC resistance @ 20 <sup>0</sup> C (Ω/km)	0.576	0.401	0.283	0.214	0.167	0.135
Maximum cond. DC resistance @ 90 <sup>0</sup> C (Ω/km)	0.734	0.511	0.360	0.273	0.213	0.171
Reactance (Ω/km)	0.090	0.090	0.088	0.086	0.086	0.085
Impedance (Z) @ 90 <sup>0</sup> C (Ω/km)	0.740	0.519	0.371	0.287	0.230	0.191
<b>Sustained current rating @ 30<sup>0</sup>C ambient</b>						
Laid out straight (A)	160	200	245	295	345	390
<b>Short circuit rating :</b>						
Symmetrical fault current (kA for 1 sec)	4.3	6.1	8.5	11.6	14.6	18.3
Earth fault current (screens) (kA for 1 sec)	2.1	3.1	3.5	4.1	4.1	4.1

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