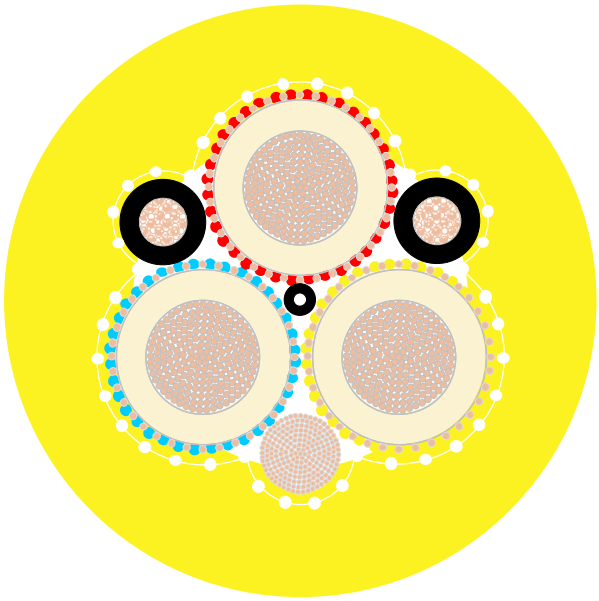
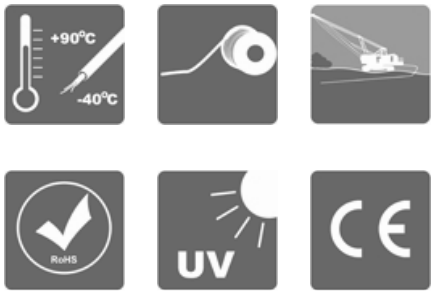
MINING FLEXIBLE CABLE
Trackless Scoop 640/1100V

POWERMITE

Flexible ,copper screened rubber insulated and sheathed cables





CONSTRUCTION	
Conductors	Flexible class 5 comply to SANS 1411 - 1 from tinned annealed copper wires.
Separator	A suitable tape separator between the conductor and insulation.
Insulation	Ethylene propylene thermosetting compound type RD 6 comply to SANS 1411-3
Core of cable	Three tinned copper/nylon braid screened power cores and two unscreened pilot core and one tinned earth conductor laid up in the right hand lay around rubber type RD1 dummy centre .
Outer sheath	Extra heavy duty yellow CM sheath type RS 6 comply to SANS 1411 .
Physical Properties :	As per table 1
Electrical Properties:	As per table 2
Flame propagation	IEC 60332-1-2:2004 ,EN 60332-1-2:2004
Standard marking	TF KABLE 3 Texoprene Trackless Scoop (Size) (Voltage)(Year) + metre marking

FEATURES

- Excellent flexibility
- Water resistant and flame retardant
- Temperature range –25ºC to +90 ºC .For fixed installation lowest temperature is -40 ºC
- UV ,sunlight , ozone ,oil, resistant
- Legible and indelible ink jet or embossing (for 25mm^2 and larger) marking as per order

APPLICATIONS

- Submersible pumps , on board wiring for machines .
- Single , double ,triple drilling rigs ,loaders , low haulage dumpers , loaders , large drilling rigs.

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- Other industrial applications

Standard length cable packing	1000m on drums. Other forms of packing and delivery are available on request

Table 1

Physical Properties							
Power cores							
Conductor sizes (mm^2)	**2.5**	**10**	**16**	**25**	**35**	**50**	**70**
Maximum wire diameter (mm)	0.26	0.41	0.41	0.41	0.41	0.41	0.51
Approx. conductor diameter (mm)	2.1	4.2	5.3	6.8	8.5	10.3	11.9
Maximum screen wire diameter (mm)	0.21	0.31	0.31	0.31	0.31	0.31	0.31
Braided screen filling factor (%)	80	80	80	80	80	80	80
Approx. summarized screen cross-section for power cores (weighing method) (mm^2)	8	19	22	25	27	32	37
Pilot cores							
Number of pilot cores	-	2	2	2	2	2	2
Conductor sizes (mm^2)	-	4	4	6	6	10	10
Maximum wire diameter (mm)	-	0.31	0.31	0.31	0.31	0.41	0.41
Approx. conductor diameter (mm)	-	2.7	2.7	4.2	4.2	5.3	5.3
Earth cores							
Number of earth cores	1	1	1	1	1	1	1
Conductor sizes (mm^2)	1.5	6	10	16	16	25	35
Maximum wire diameter (mm)	0.26	0.41	0.41	0.41	41	0.41	41
Approx. conductor diameter (mm)	1.7	3.3	4.2	5.3	5.3	6.8	8.5
Lay Ratio (maximum) (x PCD)	12	8	8	8	8	8	8
Cable diameter							

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Minimum	(mm)	16.5		34.5	36.4	37.0	43.6	50.1
Maximum	(mm)	18.3		37.5	37.7	40.0	46.9	54.0
Cable mass (approx.)	(kg/m)	0.52	1.50	2.20	2.74	3.10	4.01	5.41
Minimum bending radius	(mm)	100		210	310	320	370	430
Maximum recommended tension	(kN)	0.12	0.50	0.79	1.24	1.73	2.48	3.47

Table 2

Electrical Properties							
Power cores							
Maximum cond. DC resistance @ 20^{0}C (Ω/km)	8.54	2.11	1.34	0.859	0.610	0.424	0.299
Maximum cond. DC resistance @ 90^{0}C (Ω/km)	11.39	2.69	1.79	1.15	0.814	0.566	0.399
Reactance (Ω/km)	0.121	0.108	0.103	0.100	0.090	0.090	0.088
Impedance (Z) @ 90^{0}C (Ω/km)	11.39	2.69	1.79	1.15	0.819	0.573	0.409
Sustained current rating @ 30^{0}C ambient							
Laid out straight (A)	35	100	111	141	181	221	270
1 layer on drum (A)	29	81	91	120	151	180	231
2 layer on drum (A)	23	61	71	91	121	141	181
3 layer on drum (A)	16	41	51	61	81	101	121
Short circuit rating :							
Symmetrical fault current (kA for 1 sec)	0.3	1.1	1.8	2.8	4.0	5.7	7.9
Earth fault current (screens) (kA for 1 sec)	0.3	0.6	1.0	1.6	2.1	3.1	3.5