



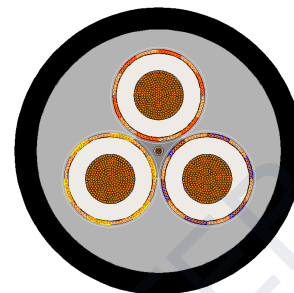
TEBAOFLEX CABLE

DATA SHEET

Mining&Industrialcable

TYPE 409 CLASS 2 COMPOSITE SCREENED CABLE

1.1 kV to 22 kV trailing cable to AS/NZS 2802



APPLICATION

Composite screened power cores with a single extensible pilot. Heavy duty trailing cable with good flexibility and high resistance to abrasion and weathering, suitable for pumps, shovels, draglines, blasthole drills and most reeling applications in open-cut mining.

CONSTRUCTION

Parameter	Value
Core	Tinned copper, three phase cores plus central pilot
Conductor tape	Polyester for 1.1/1.1 kV; semiconductive screen for 3.3 kV and above
Insulation	Class 2 EPR compound, R-EP-90
Insulation tape	Proofed textile for 1.1/1.1 kV; semiconductive screen for 3.3 kV and above
Screen	Composite earth screen of tinned annealed copper wire and polyester yarn
Core colours	Red, white and blue
Pilot	Single central pilot core
Sheath	Heavy duty HD-85-PCP sheath with polyaramid yarn braid reinforcement where applicable

CABLE CHARACTERISTICS

Parameter	Value
Standard	AS/NZS 2802
Voltage range	1.1 kV to 22 kV
Maximum continuous operating temperature	+90 deg C
Minimum installation temperature	-25 deg C
Installation conditions	In free air for mobile equipment and open-cut mine trailing service
Oil / water performance	Very good immersion performance and very good flexibility
Flame performance	C1

TECHNICAL DATA

Complete nominal dimensional data. Source ordering codes have been omitted.

TYPE 409.1 - 1.1 kV											
Part	Area mm2	Cond. Dia. mm	Insul. mm	AC Res. oh/km	React. oh/km	Volt Drop mV/A.m	Cap. uF/km	Earth mm2	Sheath mm	Cable Dia. mm	Mass kg/100m
6-409-1	6	3.5	1.5	4.32	0.145	7.49	0.259	8.2	3.8	32.2	160
10-409-1	10	4.6	1.5	2.58	0.133	4.47	0.314	8.2	3.8	34.3	185
16-409-1	16	6.2	1.6	1.58	0.120	2.74	0.379	10	4.0	38.1	235
25-409-1	25	7.2	1.6	0.951	0.113	1.66	0.432	12	4.3	40.9	290
35-409-1	35	8.4	1.6	0.698	0.108	1.22	0.493	14	4.6	44.0	345
50-409-1	50	9.7	1.7	0.523	0.107	0.925	0.526	14	5.0	49.1	430
70-409-1	70	12.0	1.8	0.346	0.0997	0.624	0.599	16	5.4	54.8	550
95-409-1	95	13.3	2.0	0.271	0.0971	0.499	0.591	22	6.0	60.0	675
120-409-1	120	15.3	2.1	0.210	0.0932	0.398	0.640	25	6.4	65.2	815
150-409-1	150	17.2	2.3	0.166	0.0928	0.329	0.652	37	6.9	72.3	1025
185-409-1	185	18.8	2.5	0.137	0.0915	0.285	0.657	40	7.4	77.8	1200
240-409-1	240	21.7	2.8	0.106	0.0905	0.241	0.672	58	8.2	88.3	1555
300-409-1	300	24.3	3.0	0.0849	0.0883	0.212	0.719	63	8.8	95.7	1860

TYPE 409.3 - 3.3 kV											
Part	Area mm2	Cond. Dia. mm	Insul. mm	AC Res. oh/km	React. oh/km	Volt Drop mV/A.m	Cap. uF/km	Earth mm2	Sheath mm	Cable Dia. mm	Mass kg/100m
16-409-3	16	6.2	3.0	1.58	0.131	2.75	0.255	14	5.3	47.4	335
25-409-3	25	7.2	3.0	0.951	0.125	1.66	0.280	15	5.6	50.5	400
35-409-3	35	8.4	3.0	0.698	0.119	1.23	0.311	16	5.9	53.6	460
50-409-3	50	9.7	3.0	0.523	0.115	0.928	0.347	17	6.3	57.8	545
70-409-3	70	12.0	3.0	0.346	0.107	0.627	0.408	19	6.6	62.8	665
95-409-3	95	13.3	3.0	0.271	0.102	0.502	0.439	21	7.1	66.5	765
120-409-3	120	15.3	3.0	0.210	0.0985	0.402	0.492	28	7.4	72.0	935
150-409-3	150	17.2	3.0	0.166	0.0954	0.332	0.541	32	7.8	76.7	1095
185-409-3	185	18.8	3.0	0.137	0.0942	0.288	0.584	42	8.2	82.5	1290
240-409-3	240	21.7	3.0	0.106	0.0906	0.242	0.659	48	8.8	89.8	1560
300-409-3	300	24.3	3.0	0.0849	0.0890	0.213	0.727	63	9.4	97.8	1900

TECHNICAL DATA

Complete nominal dimensional data. Source ordering codes have been omitted.

TYPE 409.6 - 6.6 kV											
Part	Area mm2	Cond. Dia. mm	Insul. mm	AC Res. oh/km	React. oh/km	Volt Drop mV/A.m	Cap. uF/km	Earth mm2	Sheath mm	Cable Dia. mm	Mass kg/100m
16-409-6	16	6.2	5.0	1.58	0.143	2.75	0.181	17	6.4	58.2	475
25-409-6	25	7.2	5.0	0.951	0.137	1.66	0.193	19	6.7	61.7	560
35-409-6	35	8.4	5.0	0.698	0.130	1.23	0.212	21	7.0	64.7	625
50-409-6	50	9.7	5.0	0.523	0.124	0.931	0.234	22	7.3	68.3	715
70-409-6	70	12.0	5.0	0.346	0.116	0.632	0.271	23	7.7	73.9	860
95-409-6	95	13.3	5.0	0.271	0.113	0.509	0.292	30	8.1	78.2	1005
120-409-6	120	15.3	5.0	0.210	0.108	0.409	0.325	32	8.5	83.4	1160
150-409-6	150	17.2	5.0	0.166	0.105	0.340	0.354	46	8.9	89.4	1380
185-409-6	185	18.8	5.0	0.136	0.102	0.294	0.381	49	9.3	93.7	1545
240-409-6	240	21.7	5.0	0.106	0.0981	0.250	0.426	53	9.9	101	1830
300-409-6	300	24.3	5.0	0.0845	0.0959	0.221	0.467	71	10.4	109	2195

TYPE 409.11 - 11 kV											
Part	Area mm2	Cond. Dia. mm	Insul. mm	AC Res. oh/km	React. oh/km	Volt Drop mV/A.m	Cap. uF/km	Earth mm2	Sheath mm	Cable Dia. mm	Mass kg/100m
25-409-11	25	7.2	7.6	0.951	0.150	1.67	0.150	24	8.1	76.1	810
35-409-11	35	8.4	7.6	0.698	0.143	1.23	0.163	30	8.4	79.8	920
50-409-11	50	9.7	7.6	0.523	0.136	0.936	0.178	32	8.7	83.2	1020
70-409-11	70	12.0	7.6	0.346	0.127	0.638	0.204	35	9.1	88.8	1185
95-409-11	95	13.3	7.6	0.271	0.124	0.516	0.219	48	9.6	93.9	1365
120-409-11	120	15.3	7.6	0.210	0.119	0.418	0.241	53	9.9	98.8	1540
150-409-11	150	17.2	7.6	0.165	0.114	0.347	0.261	56	10.3	104	1730
185-409-11	185	18.8	7.6	0.136	0.111	0.304	0.279	56	10.7	108	1900
240-409-11	240	21.7	7.6	0.106	0.107	0.261	0.309	77	11.3	116	2280

TECHNICAL DATA

Complete nominal dimensional data. Source ordering codes have been omitted.

TYPE 409.22 - 22 kV											
Part	Area mm2	Cond. Dia. mm	Insul. mm	AC Res. oh/km	React. oh/km	Volt Drop mV/A.m	Cap. uF/km	Earth mm2	Sheath mm	Cable Dia. mm	Mass kg/100m
35-409-22	35	8.4	10.5	0.698	0.160	1.24	0.147	53	10.0	102	1420
50-409-22	50	9.7	10.5	0.523	0.153	0.944	0.159	56	10.3	106	1540
70-409-22	70	12.0	10.5	0.346	0.143	0.648	0.178	60	10.7	111	1735
95-409-22	95	13.3	10.5	0.271	0.138	0.527	0.189	62	11.1	115	1870

CERTIFICATIONS

