



11/11 kV Paper Insulated



Cable description

Three core belted paper insulated cable to AS1026 and AS/NZS 1972.

Application

High voltage feeder cables used in power reticulation throughout the mine. Suitable as primary supply for mines and industrial networks.

Note: 12.7/22 kV XPLE cable can be used as an alternative, with gains in temperature rating generally allowing a reduction in cable size, with consequent savings in cost, size and weight.

Approvals

AS/NZS 1972

Behaviour in flame and fire

No fire performance

Temperature range

Maximum operating temperature: +65°C Minimum operating temperature: 0°C

Flexibility

Rigid

Resistance to

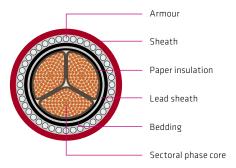
Chemical exposure: Very good/Frequent

Mechanical impact: Very heavy

Water exposure: Immersion/Temporary coverage

Solar radiation and

weather exposure: Suitable for direct exposure



Cable design

Paper insulated, paper belted, lead sheathed, GSW armoured, PVC sheathed cable.

Core: Metal: Compacted shaped plain annealed copper

conductor. Semiconductive tape screen.

Insulation: Impregnated paper tape insulated (numbered),

overall paper tape belt insulated.

Inner sheath:

Lead alloy.

Bedding: Bitumen impregnated paper and textile tape.

Armour: Galvanised steel wire armour.

> The armour is designed to provide not less than 50% conductance of the power conductor.

Outher sheath: PVC (red).

Installation conditions

In free air In duct Buried direct





MINE FEEDER CABLES



Physical & electrical characteristics

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Cor	ductor	Nominal overall diameter	Approx. cable mass	Min. installed bend radius mm							
mm²	Shape	mm	kg/100m								
16	Circular	47.6	551	570							
25	Circular	49	632	590							
35	Circular	50.3	673	600							
50	Sector	53	748	640							
70	Sector	56.3	873	680							
95	Sector	60	1021	720							
120	Sector	62.1	1122	750							
150	Sector	65.1	1268	780							
185	Sector	69.9	1542	840							
240	Sector	74.8	1793	900							
300	Sector	79.8	2119	960							
400	Sector	86.3	2505	1040							
500	Sector	92.2	3003	1110							

Core	Current rating			Electrical characteristics					
Area mm²	In air A	In ground A	In ducts A	DC ohm	AC ohm	Inductance	Capacitance	Star reactance	Volt drop
16	61	75	67	1.15	1.35	0.398	0.165	0.125	2.35
25	79	96	86	0.727	0.856	0.344	0.212	0.108	1.49
35	95	115	102	0.524	0.617	0.323	0.242	0.102	1.08
50	120	143	126	0.387	0.456	0.292	0.29	0.092	0.805
70	149	176	154	0.268	0.316	0.28	0.328	0.088	0.568
95	182	211	185	0.193	0.228	0.27	0.367	0.085	0.421
120	208	240	210	0.153	0.181	0.264	0.398	0.083	0.345
150	236	270	239	0.124	0.147	0.255	0.435	0.08	0.29
185	269	303	269	0.0991	0.118	0.25	0.474	0.078	0.246
240	318	353	313	0.0754	0.091	0.242	0.525	0.076	0.205
300	362	396	351	0.0601	0.073	0.238	0.573	0.075	0.181
400	419	450	398	0.047	0.059	0.234	0.642	0.073	0.162
500	481	509	456	0.0366	0.047	0.229	0.715	0.072	0.149

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