

ZINC EARTHING CELL

GENERAL

Zinc anodes are recommended for use in soils with resistivities below 1,000 ohm-cm & insulating kits. The packaged anodes are commonly used as Zinc Earthing Cell (ZEC) on pipelines to limit dangerously high voltages in insulation kits. ZEC contains of two zinc anodes with a 1" separator in a cotton baggage which is filled by standard backfill (75% Gypsum, 20% Bentonite and 5% Sodium Sulfate). Two cables are connected to zinc anodes separately. A mild steel insert is inside of zinc anodes to supply better cable connection. The connection shall be sealed to prevent water intrusion by application of a potting compound (E.G., Epoxy Resin) or mastic-lined polyethylene.

To overcome AC interferences in parallel high voltage cables, a single zinc anode with standard backfill is used as earthing cell.

CHEMICAL COMPOSITION

Element	Composition (wt %)
Aluminum	0.1 – 0.5
Cadmium	0.025 – 0.07
Iron	Max. 0.005
Lead	Max. 0.006
Copper	Max. 0.005
Other Elements (total)	Max. 0.1
Zinc	Remainder

CABLE CONNECTION AND DIMENSION

Anode Type	Dimension (mm × mm × mm)	Net Weight (Kg)	Cable Size	Cable length	Cable Type
<input type="checkbox"/> Double ZEC	<input type="checkbox"/> 27 × 27 × 1000 <input type="checkbox"/> 35 × 35 × 1000	5 8.5	<input type="checkbox"/> 1 × 6 <input type="checkbox"/> 1 × 10	(m)	<input type="checkbox"/> PVC/PVC <input type="checkbox"/> XLPE/PVC
<input type="checkbox"/> Single ZEC	<input type="checkbox"/> 35 × 35 × 1500	13			