Technical Specification Sheet –

Zinc Anode Grounding Cell

Energy Economics, Inc.
PO Box 220
109 South St. SE
Dodge Center, MN 55927
Tel.: 507-374-2557 Fax: 507-374-2646
www.eei.com sales@eei.com

Why choose Energy Economics, Inc. Zinc Anode Grounding Cells?

Anodes are widely utilized today and are an effective choice for preventing corrosion in most soils. EEI offers standard zinc anodes made to ASTM B-418, Type II standard alloy, which generate an open circuit potential of 1.10 volts (with respect to a Cu/CuSo4 reference). Made from 99.99% pure high-grade zinc, EEI zinc anodes offer a 90% current efficiency and deliver a current capacity of 335 amp-hours/ pound. This purity composition assures the anodes are more resistant to pacifying films. The preferred zinc anode for corrosion control of steel or other components underground for cathodic protection use such as: • Above Ground Storage Tank Cathodic Protection • Grounding Overhead Structures • Pipeline Cathodic Protection • AC Mitigation This alloy meets the compositional requirements of Mil-A-1800-1-J and ASTM B-418-95a, Type I.

Standard Fabrication

EEI zinc anodes are packaged in cloth bags and centered in a low resistance backfill mixture. Our standard backfill mixture consists of 75% hydrated gypsum, 20% bentonite, and 5% sodium sulfate. A 10' coiled lead of #12 W solid copper wire is silver soldered to the anode core. The connection is then coated with two layers of insulating and plastic electrical tape.

Typical Applications

Zinc anodes are recommended for use in soils with resistivity's below 1,000 ohm-cm. Because these anodes have a driving voltage less than magnesium, they are most effective on well coated steel structures requiring minimal current output. Packaged anodes are commonly used as grounding cells on electrical equipment and across insulators on pipelines to limit high voltages. Zinc anodes should not be used in extremely alkaline (above 9.2 pH), acidic (below 5 pH), or high temperature (above 140°F) electrolytes.

Features

Two Zinc Type II anodes separated with 1" insulating spacers • 10' of #6 HMWPE cathodic protection cable crimped securely to each anode • Both anodes centered in one cloth bag and surrounded with low resistance backfill.

Element	Content %	
	MIL-A-18001 ASTM -B-418 Type I	ASTM B-418 Type II
Al	0.1 – 0.5%	0.005% max
Cd	0.02 – 0.07%	0.003% max
Fe	0.005% max	0.0014% max
Pb	0.006% max	0.003% max
Cu	0.005% max	0.002% max
Zinc	Remainder	Remainder

Anode Type	Bare Weight	Width	Height	Length	Total Packaged Weight
S5	5 lbs	1.4	1.4	10	20 lbs
S12	12 lbs	1.4	1.4	24	40 lbs
S15	15 lbs	1.4	1.4	30	50 lbs
S15A	15 lbs	2	2	15	36 lbs
S18	18 lbs	1.4	1.4	36	55 lbs
S30	30 lbs	1.4	1.4	60	86 lbs
S30A	30 lbs	2	2	30	67 lbs
S45	45 lbs	2	2	45	100 lbs
S60	60 lbs	2	2	60	120 lbs