

# ZINC RIBBON ANODES

PRODUCT DATA SHEET



www.yuxi-anode.com



## PRODUCT DATA SHEET ZINC RIBBON ANODES

Extruded around a centralised galvanized steel wire core, our zinc ribbon anode is ideal for unattended applications, where impressed current cathodic protection systems or constant monitoring is not feasible. Besides, zinc ribbon anodes also provide a cost effective method of AC mitigation on pipelines, or regarded as grounding mats for alienating current mitigation.

#### **CHEMICAL COMPOSITION**

Our anode is made from special high grade (SHG) zinc ingots with 99.995% purity. The high-purity composition ensures the anode material is more resistant to passive films. Type I is generally used in seawater or brackish water, while Type II is used in underground and fresh water.

#### ASTM – B418 Type I

Element		Content (%)
Aluminum	(AI)	0.100 ~ 0.500
Lead	(Pb)	0.006 max.
Iron	(Fe)	0.005 max.
Copper	(Cu)	0.005 max.
Cadmium	(Cd)	0.025 ~ 0.070
Other Impurities		0.100 max.
Zinc	(Zn)	Remainder

#### ASTM – B418 Type II

Element		Content (%)
Aluminum	(AI)	0.005 max.
Lead	(Pb)	0.003 max.
Iron	(Fe)	0.0014 max.
Copper	(Cu)	0.002 max.
Cadmium	(Cd)	0.003 max.
Other Impurities		0.100 max.
Zinc	(Zn)	Remainder











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#### **ELECTROCHEMICAL PROPERTIES**

Our zinc ribbon anode is designed for challenging colder weather(-22°F/ -30°C) environments, such as thawed zones in permafrost.

#### 🗖 ASTM – B418 Type I

Technical Measurement		Performance	
	Open Circuit Voltage (min.)	-1.05 Volts	
	Closed Circuit Voltage (min.)	-1.00 Volts	
	Current Capacity	780 A.h/kg (354 A.h/lbs)	
	Current Efficiency	95%	
	Consumption Rate	11.2 kg/A.y(24.8 lbs/A.y)	

#### ASTM – B418 Type II

Technical Measurement	Performance	
Open Circuit Voltage (min.)	-1.10 Volts	
Closed Circuit Voltage (min.)	-1.05 Volts	
Current Capacity	740 A.h/kg(335 A.h/lbs)	
Current Efficiency	90%	
Consumption Rate	11.9 kg/A.y(26.2 lbs/A.y)	

\* The open/closed circuit voltage is with respect to a saturated calomel electrode.

#### PRACTICAL APPLICATION

Our zinc ribbon anodes are commonly used in passive cathodic protection of metallic structures in confined spaces or high resistivity locations, such as underground carrier pipes within sleeves, closely spaced pipe network, pipelines in rocky and mountainous terrain, limited space between inner and outer casings of wells, interstitial spaces between old, corroded and new storage tank bottoms, or narrow space need winding on the protection of steel structure.

### SPECIFICATIONS









Plus



Standard

d	Small		

Item No.	Cross Section	Core Diameter	Length	Unit Weight
YX-ZR-01	25.40 x 31.75mm(1" x 11/4")	4.70mm (0.185")	30.5m (100 ft.)	3.570kg/m (2.40 lbs/ft)
YX-ZR-02	15.88 x 22.22mm(5/8" x 7/8")	3.43mm (0.135")	61m (200 ft.)	1.785kg/m (1.20 lbs/ft)
YX-ZR-03	12.70 x 14.28mm(1/2" x 9/16")	3.30mm (0.130")	152.5m (500 ft.)	0.893kg/m (0.60 lbs/ft.)
YX-ZR-04	8.73 x 10.32mm(11/32" x 13/32")	2.92mm(0.115")	305m (1000 ft.)	0.372kg/m (0.25 lbs/ft)

Note: All dimensions and weights shown above are nominal. The information provided is subject to change without notice.







#### Industrial Corrosion Control Solutions Provider

Established in 2003, YUXI has over a 20-year heritage of innovation in corrosion control science and technology. We're a spirited team of ambitious thinkers and pioneer sheep with a common goal in mind: protect our clients' assets from corrosion with cost-saving measures.

We have the most comprehensive catalog of cathodic protection materials including anodes, transformer rectifiers, backfills, coatings, etc. Our anodes and supplies are manufactured to strict quality standards through an ISO 9001 quality management system and are guaranteed to offer excellent performance in the industry.



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