

magnesium sacrificial anodes

Datasheet DS 0012
Rev.00

Magnesium alloy sacrificial anodes are widely used in on-shore cathodic protection applications due to their high natural driving voltage that makes them the best choice to protect steel structures also in medium-to-high resistivity soils.

Magnesium alloy anodes are used both bare and pre-packaged in a special formulated backfill that insure superior moisture retention, high current delivery and uniform consumption over time.

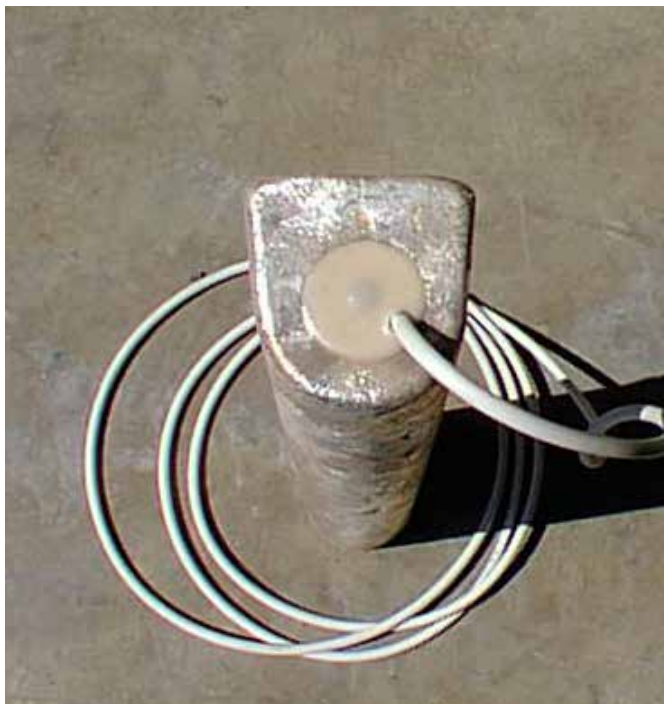
Our company Tecnoseal Industry S.r.l. can supply a wide range of high-quality magnesium anodes that will meet all the customer's needs.

Strict quality controls to ensure that our product is free from any defect make our anode an extremely reliable product.

We propose two different Magnesium alloys: standard

ASTM AZ63 for low and medium resistivity soils ($\rho < 20 \Omega \cdot m$) and high-potential HP-1 where a stronger driving voltage is needed.

Please contact our technical office for further information about our range of magnesium sacrificial anodes.



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Element	U.o.m.	ASTM AZ63			HP-1
		Grade A	Grade B	Grade C	
Aluminum	(%)	5.3 – 6.7	5.3 – 6.7	5.0 – 7.0	0.01 max
Zinc	(%)	2.5 – 3.5	2.5 – 3.5	2.0 – 4.0	---
Manganese	(%)	0.15 min	0.15 min	0.15 min	0.50 - 1.30
Silicon	(%)	0.10 max	0.30 max	0.30 max	0.05 max
Copper	(%)	0.02 max	0.05 max	0.10 max	0.02 max
Nickel	(%)	0.002 max	0.003 max	0.003 max	0.001 max
Iron	(%)	0.003 max	0.003 max	0.003 max	0.03 max
Others	(%)	0.30 max	0.30 max	0.30 max	0.30 max
Magnesium	(%)	Remainder at 100%			
Electrochemical properties					
Open circuit Voltage*	(V)	1.55 typ			1.75 typ
Closed circuit voltage*	(V)	1.45 – 1.50			1.58
Actual capacity	(A·h/kg)	1100 typ. (500A·h/lb)			
Consumption rate	(kg/A·y)	7.97 typ. (17.5 kg/A·y)			
Efficiency	(%)	0.55 typ			0.5 typ

* potentials measured in respect with standard CSE electrode