

Magnesium Alloy Cast Sacrificial Anode

Product Specification

1. Product Overview

This product is a magnesium alloy cast sacrificial anode, manufactured from high-potential magnesium-manganese alloy material. It is primarily used for cathodic protection of underground metal structures such as pipelines and storage tanks. The product features high potential, stable current efficiency, and long service life.

2. Product Types and Specifications

2.1 Type R - Cylindrical Anode

Type/Model	Weight (kg)	Dia (mm)	Length -1.7V (mm)	Length -1.5V (mm)	Insert/Core
R36	3.6	114	200	190	strip
R41	4.1	114	230	215	strip
R50	5.0	114	280	268	strip
R77	7.7	114	431	412	strip
R100	10	114	560	536	strip
R145	14.5	146	500	475	strip
R227	22.7	178	520	497	strip
R273(I)	27.3	178	630	615	strip
R273(II)	27.3	114	1528	1495	strip

2.2 Type D - D-Shaped Anode

Type/Model	Weight (kg)	A (mm)	B (mm)	C (mm)	Insert/Core
9D2-1	4.1	63.5	63.5	660	Strip
9D2-2	4.1	69.9	76.2	545	Strip
14D2-1	6.35	63.5	63.5	1010	Strip
14D2-2	6.35	69.9	76.2	850	Strip
20D2-1	9.1	63.5	63.5	1505	Strip
20D2-2	9.1	69.9	76.2	1220	Strip
9D3	4.1	88.9	95	340	Strip
17D3	7.7	88.9	95	635	Strip
32D5	14.5	139.7	146	495	Strip
48D5	21.8	139.7	146	740	Strip

2.3 Type S - S-Shaped Anode

Type/Model	Weight (kg)	A (mm)	B (mm)	C (mm)	Insert/Core
3S3	1.36	76	76	118	Strip
5S3	2.27	76	76	200	Strip
9S2	4.1	71.1	50.8	750	Strip
9S3	4.1	76	76	355	Strip
17S3	7.7	96.5	76.2	670	Strip
17S4	7.7	102	102	440	Strip
32S5	14.5	127	127	560	Strip
48S5	21.8	127	127	840	Strip

3. Chemical Composition and Electrochemical Performance

3.1 Chemical Composition (%)

Alloy	Al (max)	Zn	Mn	Si (max)	Cu (max)	Ni (max)	Fe (max)	Total Impurities (max)
AZ63B	5.30-6.70	2.50-3.50	0.15-0.70	0.10	0.02	0.002	0.003	0.30

3.2 Electrochemical Performance

Open Voltage (V)	Closed Voltage (V)	Actual Capacity (A·h/kg)	Efficiency (%)
1.50-1.55	1.45-1.50	1,230 min	55 min

The sacrificial magnesium alloy anode with standard potential is recommended to be used in the case where the electric resistivity of the soil is higher than 2000 cm in order to reduce the project cost.

4. Technical Notes

4.1 Model Numbering System:

- The numeric part indicates anode weight in pounds (e.g., 32 = 32 lbs, approximately 14.5 kg)
- Letter R indicates cylindrical shape, D indicates D-shaped cross-section, S indicates S-shaped cross-section
- The numeric suffix indicates cross-section dimension in inches (e.g., D5 = D-shaped cross-section length of 5 inches, approximately 12.7 cm)

4.2 Core Specifications:

High-potential cast anode rods are equipped with a galvanized steel core. Specific dimensions can be customized according to customer requirements.

4.3 Packaging Options:

- Bare Cast Anode: Suitable for export; customers perform subsequent processing
- Packaged Cast Anode: Wrapped with sodium sulfate, gypsum powder, bentonite, and cotton bag; suitable for domestic use

4.4 Customization Service:

Custom sizes and specifications are available upon request. Please provide detailed dimensional requirements.