



HSCI Solid Stick Anodes

YUXI has been manufacturing and supplying HSCI Solid Stick anodes for over 40 years and having initially manufactured all the Durichlor-51 Anodes at our plant in the UK.

YUXI has developed a full product line of High Silicon Cast Iron Solid anodes with a capacity of over 3,000 Tons per year from production facilities based in the UK and China. Solid anodes are manufactured by a Chill casting method using gravity to feed the metal mold.

Office: +86(574)8388 2233

Dongxi, Xinqiao, Xiangshan
Ningbo 315725, P.R.China

info@yuxi-anode.com

www.yuxi-anode.com

APPLICATION

- ▶ HSCI Anodes are used for impressed current cathodic protection applications including deep well systems, shallow installations, grounding cell & off-shore structures.
- ▶ HSCI anodes form a protective oxide film on their outer surface when anodically polarized and damp, prolonging life expectancy.
- ▶ The additional of Chromium to the chemistry is recommended for more severe environments such as brackish or saltwater environments.



FEATURES

- ▶ Compact structure: lower chemical segregation, no gas porosity, no internal shrinkage, and non-metallic inclusions. Proven by adherence to ASTM E186 X-Ray level 1-2
- ▶ Cast in taper pin or bolt connection with high quality epoxy resin encapsulation & heat shrink sleeve ensures superior cable connection at the anode head
- ▶ High Anode Utilization of between 60% - 70% of the anode weight results in an economic CP solution

CHEMICAL COMPOSITION

Element	ASTM A518 / A518M		BS 1591 1975
	Grade 1 (Si-Fe)	Grade 3 (Si-Fe-Cr)	
Carbon	0.65~1.10%	0.70~1.10%	1.40% Max.
Manganese	1.50% Max.	1.50% Max.	0.50% Max.
Silicon	14.20~14.75%	14.20~14.75%	14.25~15.25%
Chromium	0.50% Max.	3.25~5.00%	0.50% Max.
Molybdenum	0.50% Max.	0.20% Max.	/
Copper	0.50% Max.	0.50% Max.	/
Sulphur	/	/	0.10% Max.
Phosphorus	/	/	0.25% Max.
Iron	Remainder	Remainder	Remainder

ELECTROCHEMICAL PROPERTIES

Element	ASTM A518/A518M Grade 1 (Si-Fe)	ASTM A518/A518M Grade 3 (Si-Fe-Cr)	BS 1591 1975
Soil/Fresh Water	2.0-5.0A/m ²	0.1-0.5kg/A-y	Avoid: Dry Soils High PH Value High Sulfate Consider during design: Brittle Chrome Alloy Chloride Environment
	0.2-0.5A/ft ²	0.2-1.2lbs/A-y	
Carbon Backfill	5.0-10A/m ²	0.05-0.3kg/A-y	
	0.5-1.0A/ft ²	0.1-0.7lbs/A-y	
Sea Water	10-50A/m ²	0.3-0.5kg/A-y	
	1.0-5.0A/ft ²	0.7-1.0lbs/A-y	

SPECIFICATIONS

Anode Model	Anode Weight	Diameter	Overall Length	Surface Area
YX-48-SA2S	23.00lbs(10.50kg)	Φ1.50"(38mm)	48"(1220mm)	1.61sq.ft.(0.15m ²)
YX-48-SA3S	39.50lbs(18.00kg)	Φ2.00"(51mm)		2.15sq.ft.(0.20m ²)
YX-48-SA4S	88.00lbs(40.00kg)	Φ3.00"(76mm)		3.23sq.ft.(0.30m ²)

Anode Model	Anode Weight	Diameter	Overall Length	Surface Area
YX-60-SA2	28.50lbs(13.00kg)	Φ1.50"(38mm)	60"(1524mm)	2.10sq.ft.(0.19m ²)
YX-60-SA3	48.50lbs(22.00kg)	Φ2.00"(51mm)		2.70sq.ft.(0.25m ²)
YX-60-SA4	108.00lbs(49.00kg)	Φ3.00"(76mm)		4.00sq.ft.(0.37m ²)