

INSPECTION & TEST PLAN

Magnesium Anode

		Client :	Doc No :	Date :		
ITEM	TEST	REF.STANDARD	REQUIREMENTS	Test Frequency	type of inspection	
					1	2
1	Chemical composition	IPS-M-TP-750/3 table 1 para.7.2.1	Aluminum, max. 0.01% Manganese 0.9 - 1.2% Copper, max. 0.02% Iron, max. 0.03% Nickel, max. 0.001% Other elements, total, max. 0.3% Magnesium* Remainder	one samples per each 15 ton	H	R
2	Closed Circuit Potential (V) Open Circuit Potential (V) Electrochemical Capacity (A-h/kg) consumption Rate (Kg/A-yr)	ASTM G97 ASTM G97 ASTM G97 ASTM G97	-1.7(V) or more negative w.r.t CSE -1.65 (V) or more negative w.r.t CSE 1200 min (A-h/kg) 7.3 max (kg/A-yr)	one samples per each 15 ton	H	R
3	-Insert material check	IPS-M-TP-750/3 para.7.3	The magnesium anode core shall be made from commercial hot dipped galvanized steel conforming to ASTM specification A 283, Grade C or equivalent standard. CE<0.45	10% per heat	H H	
4	Cast galvanic anode identification	IPS-M-TP-750/3 para.8.7	Each anode shall be cast or die-stamped with the following : 1-Manufactures symbol 2-Heat number	outer face of 10% of installed anodes	H	
5	Insert dimensions and location	IPS-M-TP-750/3 para.8.5.1	- insert location within the anodes shall not deviate from nominal position shall be in $\pm 5\%$ of the nominal anode width and length and $\pm 10\%$ of the nominal anode depth -The core length shall be 75% of anode length.	10% of anodes	H	
Inspection groups						



INSPECTION & TEST PLAN

Magnesium Anode

		Client :	Doc No :	Date :		
ITEM	TEST	REF.STANDARD	REQUIREMENTS	Test Frequency	type of inspection	
					1	2
6	Dimensions & Straightness of anode	IPS-M-TP-750/3 para.5.3.1 para.5.3.2 para.5.3.3	Measure the following items: - mean length of anode - mean width - mean thickness - strightness shall not deviate more than 3%	10% of all anodes	H	R
7	Surface irregulation	IPS-M-TP-750/3 para.6.1.1 para.6.1.2 para.6.1.3	inspect the following items: - shrinkage depression - nonmetallic inclusions depth - crack - surface slag shrinkage depression shall be accepted. shall not exceed 1/4 inch in depth	10% of anodes	H	R
8	Anode weight	IPS-M-TP-750/3 para.8.5.3.4 para.8.5.3.5	-The permissible variation in weight of each finished anode will be plus or minus 5% of the nominal weight. _The total contract weight shall be no more than 2% above and not below the nominal contract weight.	10% of all anodes	H	
9	release note (include shipment)		-anodes shall be bundled.strapped placed on pallets by agreed procedure for minimize damage		H	R&A
Inspection groups						