



T.M.U

P.O.Box : 14115-143
Tehran, I.R. IRAN

Tel : +98-21-82880
Fax : +98-21-82883381
www.modares.ac.ir



Tarbiat Modares University

Faculty of Engineering

ATOMIC ABSORPTION ANALYSIS TEST REPORT

Type Of Material	Al Sacrificial Anode
Client	Kimiakaran Kavoshgar Keihan Karoun Co. (The Selection Of The Testing Sample Has Been Done By The Client)
Date	18 Dec 2023
Report Number	1402092701

Chemical Composition				
Heat Number	Zn	In	Cd	Si
137	3.394 %	0.021 %	0.0006 %	0.096 %
Fe	Cu	Pb	Al	
0.078 %	0.002 %	...	96.408 %	

Acceptance Criteria According To DNV-RP-B401 Standard			
Zn	In	Cd	Si
2.50 – 5.75 %	0.015 – 0.040 %	0.002 % Max.	0.12 % Max.
Fe	Cu	Pb	Al
0.09 % Max.	0.003 % Max.	...	Rem.

Corrosion & Protection Lab
Dr. T. Shahrabi

Manager Of Corrosion
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ELECTROCHEMICAL TEST REPORT

Type Of Material	Al Sacrificial Anode
Client	Kimiakaran Kavoshgar Keihan Karoun Co. (The Selection Of The Testing Sample Has Been Done By The Client)
Date	18 Dec 2023
Report Number	1402092702
Initial Anode Specimen Weight	11.1082 g
Final Anode Specimen Weight	10.0249 g

Electrochemical Properties				
Heat Number	Closed Circuit Potential(V)	Open Circuit Potential(V)	Electrochemical Capacity(A-h/kg)	Consumption Rate(kg/A-yr)
137	-1.10	-1.16	2574	3.4

Acceptance Criteria According To DNV-RP-B401 & BS 7361 Standards			
Closed Circuit Potential(V)	Open Circuit Potential(V)	Electrochemical Capacity(A-h/kg)	Consumption Rate(kg/A-yr)
-1.05 or more negative vs. Ag/AgCl/seawater reference electrode	-1.10 or more negative vs. Ag/AgCl/seawater reference electrode	2500 min	3.5 max

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Test Conditions Maintained Throughout The Test Cycle	
pH	8.2
Resistivity	30 ohm-cm
Temperature	20 ± 3°C
Test Duration	96 h
Anode Specimen Current Output On The First Day	23.5 mA
Anode Specimen Current Output On The Second Day	6.28 mA
Anode Specimen Current Output On The Third Day	62.8 mA
Anode Specimen Current Output On The Forth Day	23.5 mA
Saturated With Oxygen	

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