

شهادة اعتماد

رقم TL 132



يقر نظام الاعتماد العراقي بأن:

مختبر معمل مايه لانتاج وإعادة تدوير البطاريات

العراق – اقليم كردستان- السليمانية – بازيان – طريق كركوك الرئيسي

تم اعتماده وفقا لمتطلبات المواصفة ISO/ IEC 17025:2017
(المتطلبات العامة لاهلية مختبرات الفحص والمعايرة)

في مجال:

- اختبارات الاجهزة والمعدات الكهربائية والالكترونية

شرط التوافق مع متطلبات المواصفة اعلاه ومتطلبات IQAS الخاصة بالاعتماد
مجال الاعتماد المرفق بالشهادة يعتبر جزءا لا يتجزأ منها

يمكن الحصول على الاصدار الاحدث من مجال الاعتماد من خلال الموقع الالكتروني

<https://iqas.mop.gov.iq>

يكون الاعتماد نافذا من 2025/7/10 الى 2027/7/9

تاريخ منح الاعتماد لأول مرة

2023/6/1

لقد

أ.د. محمد علي تميم
نائب رئيس مجلس الوزراء
وزير التخطيط

المهندس
عبد الواحد محمد ابراهيم
مدير عام الهيئة/ وكالة

Ministry of planning
Iraqi Organization for Accreditation
IQAS

ACCREDITATION CERTIFICATE

No. TL 132



Iraqi Accreditation System Certify that:

Laboratory of Maya Factory for Battery Manufacturing and Recycling

Iraq - Kurdistan Region - Sulaymaniyah – Bazian District – Kirkuk Main Road

Is accredited according to the requirements of the standard ISO/IEC 17025:2017
(General Requirements for the Competence of Testing and Calibration Laboratories)

In the field of:

- Electrical & Electronic Devices Testing

This accreditation is subject to with the above standard & IQAS requirements
The scope of accreditation is attached to the certificate & considered as part of it

The most recent issue of the accreditation scope is available on IQAS website

<https://iqas.mop.gov.iq>

Accreditation is valid From 10/7/2025 To 9/7/2027

Initial accreditation date

1/6/2023


Eng. Abdul Wahid M. Ibrahim
Director General of IQAS


Dr. Mohammed Ali Tamim
Deputy Prime Minister
Minister of Planning

	استمارة مجال الاعتماد Scope of Accreditation form	نظام الاعتماد العراقي IQAS
Organization address: Iraq - Kurdistan Region - Sulaymaniyah – Bazian District – Kirkuk Main Road	Organization name: Laboratory of Maya Factory for Battery Manufacturing and Recycling	Accreditation no.: TL 132
Signature:  Eng. Abdul Wahid M. Ibrahim Director General of IQAS	Accreditation is valid: From 10/7/2025 To 9/7/2027	Issue no.: 002

Testing field	Type of test	Test object or product	Reference to standardized method
Chemical	Free lead% in lead oxide	Lead Oxide	MBF-QC-P/003-01 Determination of Metallic Lead in Lead Oxide
Chemical	Particle size	Lead Oxide	External testing
Chemical	Acid Absorption	Lead Oxide	MBF-QC-P/004-01 Determination of Acid Absorption in the lead oxide
Chemical	Apparent Density	Lead Oxide	MBF-QC-P/015-01 Scott Volumeter Operation Procedure
Chemical	Pure lead composition	Pure Lead	MBF-QC-P/006-01 OES Operation Procedure
Visual	Aging of oxide	Lead Oxide	Visual
Visual	Lead Oxide process parameters	Lead Oxide	Visual
Chemical	Composition of positive and negative alloy	Positive and Negative lead alloy	MBF-QC-P/006-01 OES Operation Procedure
Chemical	Composition of calcium adjustment alloy	Calcium adjustment alloy	MBF-QC-P/006-01 OES Operation Procedure
Chemical	Composition of tin adjustment alloy	Tin adjustment alloy	MBF-QC-P/006-01 OES Operation Procedure
Physical	Thickness	Lead strip	MBF-QC-P/039-01 Dimensions and Thickness measurement
Visual	Wide Strip Casting process parameters	Lead strip	Visual
Visual	Appearance of grid	Lead grid	Visual
Visual	Punching process parameters	Lead grid	Visual
Chemical	Density	Paste	Visual
Chemical	%Moisture	Paste	MBF-QC-P/008-01 Moisture Analyzer Operation Procedure
Chemical	%Moisture	Plates after flash drying	MBF-QC-P/008-01 Moisture Analyzer Operation Procedure
Physical	Weight	Wet plates	Weight scale

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Visual	Mixing and Pasting process parameters	Plates and paste	Visual
Chemical	%Free lead	Cured plates	MBF-QC-P/005-01 Determination of PbO ₂ , PbSO ₄ & M-Pb % in the plate
Chemical	%Moisture	Cured Plates	MBF-QC-P/008-01 Moisture Analyzer Operation Procedure
Visual	Identification and Control state of plates & separator	Plates	MBF-QC-P/027-01 Enveloping Control Method
Visual	Type of plates (Pos & Neg)	Plates	MBF-QC-P/027-01 Enveloping Control Method
Visual	Type of separator	Separator	MBF-QC-P/027-01 Enveloping Control Method
Visual	Quality and visual aspect of plates	Plates	MBF-QC-P/027-01 Enveloping Control Method
Visual	Quality and visual aspect of separator	Separator	MBF-QC-P/027-01 Enveloping Control Method
Visual	Welding quality of envelope	Separator	MBF-QC-P/027-01 Enveloping Control Method
Physical	Height of envelope	Separator	MBF-QC-P/027-01 Enveloping Control Method
Visual	Visual aspect of plates after enveloping	Plates	MBF-QC-P/027-01 Enveloping Control Method
Visual	Plate combination	Plate groups	MBF-QC-P/027-01 Enveloping Control Method
Visual	Direction of separator ribs	Separator	MBF-QC-P/027-01 Enveloping Control Method
Visual	Reliability of camera test	Plates	MBF-QC-P/027-01 Enveloping Control Method
Visual	Reliability of Lug counter	Plate groups	MBF-QC-P/027-01 Enveloping Control Method
Visual	Storage of groups	Plate groups	MBF-QC-P/027-01 Enveloping Control Method
Visual	Identification and Control state of box	Box	MBF-QC-P/025-01 Hole Punching Control Method

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Visual	Type of box	Box	MBF-QC-P/025-01 Hole Punching Control Method
Visual	Visual aspect of holes	Box	MBF-QC-P/025-01 Hole Punching Control Method
Visual	Visual aspect of box after punching	Box	MBF-QC-P/025-01 Hole Punching Control Method
Visual	Shape of the hole	Box	MBF-QC-P/025-01 Hole Punching Control Method
Visual	Direction of box hold downs	Box	MBF-QC-P/025-01 Hole Punching Control Method
Visual	Position of punches	Box	MBF-QC-P/025-01 Hole Punching Control Method
Visual	Identification and Control state of casting lead	COS Lead alloy	MBF-QC-P/024-01 COS Control Method
Visual	Type of casting lead	COS Lead alloy	MBF-QC-P/024-01 COS Control Method
Chemical	Sb and Sn analysis	COS Lead alloy	MBF-QC-P/024-01 COS Control Method
Visual	Polarity of battery	Battery	MBF-QC-P/024-01 COS Control Method
Visual	Quality of welding	Cell group	MBF-QC-P/024-01 COS Control Method
Visual	Visual aspect of the strap	Cell group	MBF-QC-P/024-01 COS Control Method
Visual	Visual aspect of the groups	Cell group	MBF-QC-P/024-01 COS Control Method
Physical	Group height	Cell group	MBF-QC-P/024-01 COS Control Method
Physical	Post height	Cell group	MBF-QC-P/024-01 COS Control Method
Visual	Lead pot and Mold temperatures	Cell group	MBF-QC-P/024-01 COS Control Method
Visual	Times setting	Cell group	MBF-QC-P/024-01 COS Control Method

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Visual	Lug Brushing and fluxing	Cell group	MBF-QC-P/024-01 COS Control Method
Visual	Visual aspect of the strap after SCT test	Cell group	MBF-QC-P/030-01 SCT Control Method
Visual	Visual aspect of the box after SCT test	Box	MBF-QC-P/030-01 SCT Control Method
Visual	Head adjustment : contact Pin – strap of SCT	Battery	MBF-QC-P/030-01 SCT Control Method
Visual	Reliability of short circuit test	Battery	MBF-QC-P/030-01 SCT Control Method
Visual	SCT Test voltage	Battery	MBF-QC-P/030-01 SCT Control Method
Visual	SCT Minimum acceptable voltage	Battery	MBF-QC-P/030-01 SCT Control Method
Physical and Visual	ICW Centering of Hole - electrode - Flag connector	Cell group	MBF-QC-P/031-01 ICW Control Method
Visual	Welding quality of connector	Cell group	MBF-QC-P/031-01 ICW Control Method
Visual	Visual aspect of the box after welding	Cell group	MBF-QC-P/031-01 ICW Control Method
Visual	Welding program number	Battery	MBF-QC-P/031-01 ICW Control Method
Visual	Welding program parameters	Battery	MBF-QC-P/031-01 ICW Control Method
Visual	Welding Positions	Battery	MBF-QC-P/031-01 ICW Control Method
Visual	Jaws pressure	Battery	MBF-QC-P/031-01 ICW Control Method
Physical	Jaws position at end of squeeze	Battery	MBF-QC-P/031-01 ICW Control Method
Visual	Visual aspect of the strap after WT test	Cell group	MBF-QC-P/032-01 Weld Checking Control Method
Visual	Visual aspect of the box after WT test	Box	MBF-QC-P/032-01 Weld Checking Control Method

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Visual	Reliability of weld test	Battery	MBF-QC-P/032-01 Weld Checking Control Method
Visual	Head adjustment : contact Pin – strap of WT	Battery	MBF-QC-P/032-01 Weld Checking Control Method
Visual	Voltage and tolerances of WT	Battery	MBF-QC-P/032-01 Weld Checking Control Method
Visual	Welding Electrode Aspect	Battery	MBF-QC-P/032-01 Weld Checking Control Method
Visual	Main cover type	Main cover	MBF-QC-P/033-01 Heat Sealing Control Method
Physical	Melting Thickness	Battery	MBF-QC-P/033-01 Heat Sealing Control Method
Visual	Heat Sealing Recipe name	Heat Sealing	MBF-QC-P/033-01 Heat Sealing Control Method
Visual	Heat Sealing Recipe parameters	Heat Sealing	MBF-QC-P/033-01 Heat Sealing Control Method
Visual	Heat Sealing Melting Temperature	Heat Sealing	MBF-QC-P/033-01 Heat Sealing Control Method
Visual	Alignment of Main cover - box	Battery	MBF-QC-P/033-01 Heat Sealing Control Method
Visual	Visual aspect of the battery after sealing	Battery	MBF-QC-P/033-01 Heat Sealing Control Method
Visual	Visual aspect of the terminal	Battery	MBF-QC-P/034-01 Post Burning Control Method – Auto MBF-QC-P/035-01 Post Burning Control Method - Semi Auto
Visual	Height of terminals	Battery	MBF-QC-P/034-01 Post Burning Control Method – Auto MBF-QC-P/035-01 Post Burning Control Method - Semi Auto
Visual	Visual aspect of the battery after post burning	Battery	MBF-QC-P/034-01 Post Burning Control Method – Auto MBF-QC-P/035-01 Post Burning Control Method - Semi Auto

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Visual	Post burning Recipe name	Battery	MBF-QC-P/034-01 Post Burning Control Method – Auto
Visual	Post burning Recipe parameters	Battery	MBF-QC-P/034-01 Post Burning Control Method – Auto
Visual	Mold Temperature	Battery	MBF-QC-P/034-01 Post Burning Control Method – Auto
Visual	Visual aspect of the battery after leak test	Battery	MBF-QC-P/036-01 Leak Testing Control Method
Visual	Reliability of Leak test	Battery	MBF-QC-P/036-01 Leak Testing Control Method
Visual	Leak Test parameters	Battery	MBF-QC-P/036-01 Leak Testing Control Method
Visual	Visual aspect of the battery after test	Battery	MBF-QC-P/036-01 Leak Testing Control Method
Visual	Weight checker recipe name	Battery	Visual
Visual	weight tolerances	Battery	Visual
Visual	Reliability of weight test	Battery	Visual
Visual	Code is readable	Battery	MBF-QC-P/037-01 Code Marking Control Method
Visual	Coding principle has been respected	Battery	MBF-QC-P/037-01 Code Marking Control Method
Chemical	Density	Sulfuric Acid	MBF-QC-P/007-01 Density meter Operation Procedure
Electrical	Voltage	Battery	MBF-QC-P/013-01 Clamp meter Operation Procedure
Physical	Level of acid	Battery	MBF-QC-P/039-01 Dimensions and Thickness measurement
Physical	Cold cranking amperes	Battery	MBF-QC-P/028-01 Midtronics Operation Procedure
Chemical	Pb %	Formed plates	MBF-QC-P/005-01 Determination of PbO ₂ , PbSO ₄ & M-Pb % in the plate
Chemical	PbO ₂ %	Formed plates	MBF-QC-P/005-01 Determination of PbO ₂ , PbSO ₄ & M-Pb % in the plate
Chemical	PbSO ₄ %	Formed plates	MBF-QC-P/005-01 Determination of

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			PbO ₂ , PbSO ₄ & M-Pb % in the plate
Chemical	Iron concentration	Sulfuric Acid	MBF-QC-P/002-01 Analyzing Iron (Fe) in Sulfuric Acid
Chemical	Chlorine concentration	Sulfuric Acid	MBF-QC-P/001-01 Analysis of Chloride (Cl) in Sulfuric Acid
Mechanical	Ball Drop Tester	Plastic	MBF-QC-P/020-01 Ball Drop Tester Operation Procedure
Electrical	Capacity Check	Finished battery	IQS 81-1 / EN-50342
Electrical	Cranking Performance	Finished battery	IQS 81-1 / EN-50342
Electrical	High Current Discharge	Finished battery	IQS 81-1 / EN-50342
Electrical	Charge Acceptance	Finished battery	IQS 81-1 / EN-50342
Electrical	Charge Retention	Finished battery	IQS 81-1 / EN-50342
Electrical	Endurance in Cycle	Finished battery	IQS 81-1 / EN-50342
Electrical	Corrosion	Finished battery	IQS 81-1 / EN-50342
Electrical	Deep Discharge	Finished battery	IQS 81-1 / EN-50342
Electrical	Water Consumption	Finished battery	IQS 81-1 / EN-50342
Mechanical	Vibration Resistance	Finished battery	IQS 81-1 / EN-50342
Mechanical	Electrolyte Retention	Finished battery	IQS 81-1 / EN-50342