

CERTIFICATE OF ACCREDITATION

This is to attest that

MIDAL CABLES LIMITED

BUILDING 744, ROAD 5128, BLOCK 951 ASKAR 951, KINGDOM OF BAHRAIN

Testing Laboratory TL-604

has met the requirements of AC89, *IAS Accreditation Criteria for Testing Laboratories*, and has demonstrated compliance with ISO/IEC Standard 17025:2017, *General requirements for the competence of testing and calibration laboratories*. This organization is accredited to provide the services specified in the scope of accreditation.

Effective Date June 20, 2023



President

Visit www.iasonline.org for current accreditation information.

SCOPE OF ACCREDITATION

International Accreditation Service, Inc.

3060 Saturn Street, Suite 100, Brea, California 92821, U.S.A. | www.iasonline.org

MIDAL CABLES LIMITED

www.midalcable.com

Contact Name Sreedharan K. Nair

Contact Phone + 973-17-832851

Accredited to ISO/IEC 17025:2017

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Effective Date June 20, 2023

Chemical		
ASTM E716	Standard Practices for Sampling and Sample Preparation of Aluminum and Aluminum Alloys for Determination of Chemical Composition by Spark Atomic Emission Spectrometry (Al, Si, Fe, Cu, Mn, Mg, Zn, Ti, Na, B, V, Zr, Sr, Ga)	
ASTM E1251	Standard Test Method for Analysis of Aluminum and Aluminum Alloys by Spark Atomic Emission Spectrometry (Al, Si, Fe, Cu, Mn, Mg, Zn, Ti, Na, B, V, Zr, Sr, Ga)	
MECHANICAL		
Rods, Wire, Cables and Strands		
ASTM B231	Standard Specification for Concentric-Lay-Stranded Aluminum 1350 Conductors	
ASTM B232	Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR)	
ASTM B399	Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy 6201-T81 Conductors	
ASTM B416	Standard Specification for Concentric-Lay-Stranded Aluminum-Clad Steel Conductors	
ASTM B498	Standard Specification for Zinc-Coated (Galvanized) Steel Core Wire for Use in Overhead Electrical Conductors	
ASTM B502	Standard Specification for Aluminum-Clad Steel Core Wire for Use in Overhead Electrical Aluminum Conductors	
ASTM B524	Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum-Alloy Reinforced (ACAR, 1350/6201)	
ASTM B549	Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Aluminum-Clad Steel Reinforced for Use in Overhead Electrical Conductors	
ASTM B711	Standard Specification for Concentric-Lay-Stranded Aluminum-Alloy Conductors, Steel Reinforced (AACSR) (6201)	
ASTM B856	Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated Steel Supported (ACSS)	
ASTM B857	Standard Specification for Shaped Wire Compact Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Supported (ACSS/TW)	





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Midal WI- Q-2-8 and WI-Q- 2-25	Dimensional (Based on Specifications: AS 1531, IEC 62004, IEC 62420, CAN- CSA C 61089, AS 3607, ASTM Standards B 231, B 232, B 399, B 416, B 498, B 502, B 524, B 549, B 711, and B 856, EN 50182 and IEC 61089)	
Midal WI-Q-2-23	Linear Mass (Based on Specifications: AS 1531, IEC 62004, IEC 62420, CAN- CSA C 61089, AS 3607, ASTM Standards B 231, B 232, B 399, B 416, B 498, B 502, B 524, B 549, B 711, and B 856, EN 50182 and IEC 61089)	
Midal WI-Q-2-42	Surface Roughness (Based on Specifications: IEC 61089, EN 50182, AS 3822, CAN-CSA C 61089, IEC 62004, IEC 62420	
Tensile and Elongation Tests		
ASTM B557	Standard Test Methods for Tension Testing Wrought and Cast Aluminum- and Magnesium-Alloy Products	
IEC 61089	Round wire concentric lay overhead electrical stranded conductors (Based on Specifications, EN 50182, CAN-CSA C 61089, IEC 62004, IEC 62420 and AS 3822)	
Inertness Tests		
EN 50182	Conductors for overhead lines - Round wire concentric lay stranded conductors (Clause 5.5.7) (Based on AS 3822, CAN-CSA C 61089, IEC 62004, IEC 62420, ASTM Standards B 231, B 232, B 399, B 416, B 498, B 502, B 524, B 549, B 711, B 856 and B 857)	
IEC 61089	Round wire concentric lay overhead electrical stranded conductors (Clause 5.4.7)	
Torsion Tests		
AS 2505.5	Mechanical Testing Of Metals - Methods For Bend And Related Testing Of Metals - Torsion And Wrapping Tests On Wire	
ISO 7800	Metallic Materials - Wire - Simple torsion test	
Wrap Tests		
AS 2505.2	Metallic Materials Method 2: Bars, Rods And Solid Shapes - Bend Tests (Based on Specifications AS 1531 and AS 3607),	
ISO 7802	Metallic materials - Wire - Wrapping test (Based on Specification EN 50182)	
Coating (Galvanizing) Thickness Tests		
ASTM A90	Standard Test Method for Weight [Mass] of Coating on Iron and Steel Articles with Zinc or Zinc-Alloy Coatings	
EN 10244-2	Steel wire and wire products - Non-ferrous metallic coatings on steel wire - Part 2: Zinc or zinc alloy coatings	
Cladding Thickness		
Midal WI-Q-2-36	Thickness of Aluminum Coating of Aluminum Clad Steel (Based on AS 1222.2, ASTM B415 and IEC 61234)	
Conductor Grease		
ASTM D217	Standard Test Methods for Cone Penetration of Lubricating Grease	
ASTM D566	Standard Test Method for Dropping Point of Lubricating Grease	



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ISO 2137	Petroleum Products and Lubricants – Determination of Cone Penetration of Lubricating Greases and Petrolatum	
ELECTRICAL RESISTANCE		
ASTM B193	Standard Test Method for Resistivity of Electrical Conductor Materials	
IEC 62219	Overhead electrical conductors - Formed wire, concentric lay, stranded conductors. Except clauses 6.2.1(d), and 6.5.5.	
Midal W-Q-2-35	Measurement of DC Resistance (Based on AS 3822, CAN-CSA C 61089, EN 50182, IEC 61089, IEC 62004 and IEC 62420)	



