



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

ELEMENT MATERIALS TECHNOLOGY ME LIMITED ABU DHABI

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MECHANICAL

Valid To: February 28, 2027

Certificate Number: 5669.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following metallurgical, coatings and corrosion tests on ferrous and non-ferrous alloys, welds, polymers, elastomers, metallic and non-metallic materials and manhole tops.

Test:	Test Method(s):
Corrosion:	
Salt Spray (Fog) Testing	ISO 9227; ASTM B117
Susceptibility to Intergranular Attack	ASTM G28 Method A, ASTM A262 Practices A, B, C & E
Pitting Resistance	ASTM G48 Methods A, B, C & E, ASTM A923 Method C
Sulfide Stress Cracking (SSC)	NACE TM0177 ; NACE TM0316; ASTM G39; EFC 16; BS EN ISO 15156-2;
Hydrogen Induced Cracking (HIC)	NACE TM0284; BS EN ISO 15156-2;
Full Ring Ovalisation	BS 8701 (<i>Excluding Non-Destructive Tests</i>); EL-M-OP-CO-AUH-MD021; HSE OTI 95 635 (<i>Excluding Non-Destructive Tests</i>)
Hardness:	
Brinell (HBW1/30)	BS EN ISO 6506-1 ; ASTM E10
Rockwell (B and C Scales)	BS EN ISO 6508-1; ASTM E18
Vickers (5, 10 and 30 kgf) Vickers Micro-indentation (0.1, 0.3, 0.5 and 1.0 kgf)	BS EN ISO 6507-1; ASTM E92, ASTM E384
Shore A & D	ASTM D2240; ISO 868

Test:	Test Method(s):
Mechanical:	
Bend	BS EN ISO 7438; BS 4449:1988 (Withdrawn); ASTM A615/A615M; ISO 6935-2; BS EN ISO 15630-1; ASTM E290; DVS 2203-5; SS 560; BS 6744
Charpy Impact including Lateral Expansion and Shear Fracture Appearance	BS EN ISO 148-1; ASTM E23; ASTM A370; ASTM A923 Method B
Fracture Toughness CTOD -196°C and -60°C to 75°C	BS 7448-1; ISO 12135; BS EN ISO 15653; BS 7448-2:1997 (withdrawn)
Tensile at Ambient Temperature & up to 190 °C	BS EN ISO 6892-1; ASTM E8/E8M; ASTM A370; API 5L; ASTM B557M; ASTM E21; ISO 6892-2; ASTM D638; ISO 527-2; ISO 527-3; ISO 13953; DVS 2203-2 ASTM F606/F606M; ISO 898-1
Tensile Testing of Rebar	BS 4449:1997 (Withdrawn); BS 4449; BS EN ISO 15630-1:2002 (Withdrawn); BS EN ISO 15630-1:2010 (Withdrawn); BS EN ISO 15630-1; ASTM A615/A615M; ISO 6935-2; BS 6744; SS 560; CS2; BS 4482; BS 4483
Macro-examination of rebar	EL-M-OP-MET-AUH-MD004
Through-Thickness Tension Testing	ASTM A770; ISO 7778; BS EN 10164

Test:	Test Method(s):
Determination of Ferrite Content using Fischer Feritscope	EL-M-OP-MET-AUH-MD022
Rebend	BS 4449:1997 (Withdrawn), BS 4449, BS EN ISO 15630-1:2002 (Withdrawn), BS EN ISO 15630-1:2010 (Withdrawn), BS EN ISO 15630-1; ISO 6935-2; SS 560; CS2; BS 4482; BS 4483
Shear test	ASTM A264/A264M, ASTM A265/A265M; BS 4483
Fatigue	BS 4449:1997 Amd't1 (Withdrawn), BS 4449; BS EN ISO 15630-1:2002 (Withdrawn), BS EN ISO 15630-1:2010 (Withdrawn), BS EN ISO 15630-1, BS 6744; ISO 6935-2; SS 560; CS2
Projected Rib Area (Geometry)	BS 4449:1997 Amd't1 (Withdrawn); BS 4449, BS EN ISO 15630-1:2002 (Withdrawn), BS EN ISO 15630-1:2010 (Withdrawn), BS EN ISO 15630-1; ASTM A615/A615M; ISO 6935-2; BS 6744; SS 560; CS2; BS 4482
Loading Up to 1000 kN	BS EN 124-1, BS EN 1433
Welding: Bend, Fillet Weld Fracture and Nick Break, Hardness, Impact, Tensile, Macro and Microstructure and CTOD testing in accordance with specific welding codes	BS EN ISO 5173, BS EN ISO 9017, BS EN ISO 9015-1, BS EN ISO 9016, BS EN ISO 4136, BS EN ISO 5178, BS EN ISO 17639, BS 4515-1, BS 4515-2, BS EN ISO 15614-1 BS EN ISO 15614-2, BS EN 287-1,

Test:	Test Method(s):
Welding (<i>continued</i>)	BS EN ISO 9606-1, BS EN ISO 9606-2; ASME IX; API 1104; AWS D1.1/D1.1M; BS EN ISO 13847; ISO 5817; ASTM E340, ASTM E190; AWS B4.0
Metallurgical:	
Phase Volume Fraction	ASTM E562
Grain Size (By Comparison)	ASTM E112
Micro preparation and Examination	ASTM E3, ASTM E407
Inclusion Count	ASTM E45
Degree of Banding and Orientation of Microstructures	ASTM E1268
Replication of Microstructures	ASTM E1351
Detecting Detrimental Intermetallic Phase	ASTM A923 Method A
Coatings	
Determination of coating weight	ASTM A90/A90M; BS EN ISO 1460
Adhesive Lap Shear	ISO 21809-3 Annex J; EN 12068; ASTM D 1002
Holiday Detection	ISO 21809-3 annex C; ISO 21809-1 Annex B; ASTM G62; ASTM A775
Cathodic Disbondment Test	ISO 21809-3 Annex G, ISO 21809-1 Annex H, ISO 21809-2 Clause A.9; ASTM G95, ASTM G8; CSA Z240.20; NACE SP0394; AFNOR NF A49-711
Indentation Test	ISO 21809-3 Annex E, ISO 21809-1 Annex F; ASTM G17
Impact Test	ISO 21809-3 Annex D, ISO 21809-1 Annex E; EN 12068; ASTM G14, ASTM D2794; CSA Z245.20; ISO 6272-1
Hot Water Immersion	ISO 21809-3 Annex I,

Test:	Test Method(s):
Hot Water Immersion (<i>continued</i>)	ISO 21809-1 Annex L, ISO 21809-2 Clause A.15; NACE SP0394; EN 12068; CSA Z245.20
Thermal Ageing Resistance	ISO 21809-3 Annex M
Adhesion test	ASTM D4541; ISO 4624, ISO 2409; ASTM D3359
Peel Strength Test	ISO 21809-3 Annex H; ISO 21809-1 Annex C; EN 12068
Thickness	ISO 2808 method 7B2; ASTM B499; ASTM A775; ASTM D7091; ISO 21809-1 Annex A; ISO 21809-3 Annex B
Environmental Simulation	
Fluorescent Ultraviolet Light Testing	ASTM G154

CHEMICAL

Test(s):	Test Method(s):
Analysis of Plain Carbon, Low Alloy and Stainless Steels by OES & ICP-OES	ASTM E415, ASTM A751; ASTM E1479 EL-M-OP-CH-AUH-MD101; EL-M-OP-CH-AUH-MD107A; EL-M-OP-CH-AUH-MD107B
Analysis of Nickel alloys by OES & ICP-OES	ASTM E3047, ASTM E2594, ASTM E1479; EL-M-OP-CH-AUH-MD110, EL-M-OP-CH-AUH-MD101
Analysis of Aluminum alloys by OES	ASTM E1251; EL-M-OP-CH-AUH-MD101
Carbon and Sulfur Content by Combustion	ASTM E1019; EL-M-OP-CH-AUH-MD129
Nitrogen Content by Fusion	ASTM E1019; EL-M-OP-CH-AUH-MD128



Accredited Laboratory

A2LA has accredited

ELEMENT MATERIALS TECHNOLOGY ME LIMITED ABU DHABI

Abu Dhabi, UAE

for technical competence in the field of

Mechanical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated April 2017).



Presented this 3rd day of April 2025.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5669.01
Valid to February 28, 2027
Revised April 11, 2025

For the tests to which this accreditation applies, please refer to the laboratory's Mechanical Scope of Accreditation.