



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

AL FUTTAIM ELEMENT MATERIALS TECHNOLOGY DUBAI L.L.C

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MECHANICAL

Valid To: December 31, 2027

Certificate Number: 5669.14

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on geotextile, waterproofing membrane, metals, reinforcing steel bar, weldments, ceramic tiles, grouts, and adhesives:

| Test(s):                                        | Test Method(s):                                                                      |
|-------------------------------------------------|--------------------------------------------------------------------------------------|
| Puncture Test                                   | ISO 12236;<br>ASTM D4833/D4833M;<br>ASTM E154/E154M Section 10                       |
| Tensile Properties                              | ASTM D4595                                                                           |
| Grab Breaking Load and Elongation               | ASTM D4632/D4632M                                                                    |
| Tensile Strength and Elongation                 | ASTM D5147/D5147M Section 7;<br>BS EN 12311-1;<br>BS EN 12311-2;<br>UEATC MOAT No.30 |
| Tensile – Tear Strength                         | ASTM D4073/D4073M;<br>ASTM D5147/D4157M Section 8                                    |
| Resistance to Tearing (Nail Shank)              | BS EN 12310-1                                                                        |
| Thickness and Mass per Unit Area                | BS EN 1849-1;<br>BS EN 1849-2                                                        |
| Water Absorption                                | ASTM D570                                                                            |
| <u>Ceramic Tiles, Grouts &amp; Adhesives:</u>   |                                                                                      |
| Tensile Adhesion Strength                       | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                      |
| Tensile Adhesion Strength After Water Immersion | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                      |

| <b>Test(s):</b>                                                                 | <b>Test Method(s):</b>                                                                                                                                                                                                                                                                                                            |
|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ceramic Tiles, Grouts &amp; Adhesives (cont.):</b>                           |                                                                                                                                                                                                                                                                                                                                   |
| Tensile Adhesion Strength After Heat Aging                                      | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                                                                                                                                                                                                                                                                   |
| Tensile Adhesion Strength After Freeze-Thaw Cycle                               | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                                                                                                                                                                                                                                                                   |
| Open Time: Tensile Adhesion Strength                                            | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                                                                                                                                                                                                                                                                   |
| Extended Open Time: Tensile Adhesion Strength                                   | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                                                                                                                                                                                                                                                                   |
| Slip                                                                            | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                                                                                                                                                                                                                                                                   |
| Transverse Deformation                                                          | ISO 13007-1;<br>ISO 13007-2;<br>BS EN 12004-1;<br>BS EN 12004-2                                                                                                                                                                                                                                                                   |
| <b>Metals:</b>                                                                  |                                                                                                                                                                                                                                                                                                                                   |
| Charpy Impact (-196 °C to ambient temperature)<br>Including Expansion and Shear | ASTM A370;<br>ASTM E23;<br>BS EN ISO 148-1;<br>EN ISO 9016                                                                                                                                                                                                                                                                        |
| Tensile Test at Ambient Temperature                                             | ASTM E8/E8M;<br>BS EN ISO 6892-1;<br>API 5L;<br>ASTM A370;<br>ASTM B557/B557M;<br>ASTM F606/F606M;<br>BS 4449:1997 (Withdrawn) <sup>1</sup> ;<br>BS 4449;<br>BS EN ISO 15630-1:2002<br>(Withdrawn) <sup>1</sup> ;<br>BS EN ISO 15630-1:2010<br>(Withdrawn) <sup>1</sup> ;<br>BS EN ISO 15630-1;<br>ASTM A615/A615M;<br>ISO 6935-2 |
| Through-Thickness Tension Testing                                               | ASTM A770;<br>ISO 7778;<br>BS EN 10164                                                                                                                                                                                                                                                                                            |
| Determination of Ferrite Content using Feritscope                               | EMT-M-OP-MET-MD022A                                                                                                                                                                                                                                                                                                               |

| Test(s):                                                                                  | Test Method(s):                                                                                               |
|-------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------|
| <u>Metals (cont.):</u>                                                                    |                                                                                                               |
| Shear test                                                                                | ASTM A264/A264M;<br>ASTM A265/A265M                                                                           |
| Vickers Hardness<br>Micro scales: 100, 200, 300, 500 & 1000gf<br>Macro Scales: 5 & 10 kgf | ASTM E92;<br>BS EN ISO 6507-1;<br>ASTM E384                                                                   |
| Coating Thickness by Meter Gauge                                                          | EL-M-OP-CT-DXB-MD006;<br>BS EN ISO 2808;<br>ASTM B499;<br>ASTM D7091;<br>ASTM E376                            |
| Flattening Test                                                                           | ASTM A370;<br>ASTM A999/A999M;<br>ASTM A1016/A1016M;<br>BS EN ISO 8492;<br>API 5L                             |
| Hardness Rockwell-C & B Scales                                                            | ASTM E18;<br>ISO 6508                                                                                         |
| Brinell Hardness                                                                          | ASTM E10;<br>ISO 6506                                                                                         |
| <u>Weldments:</u>                                                                         |                                                                                                               |
| Bend Test                                                                                 | BS EN ISO 5173;<br>ASME IX;<br>AWS D1.1/D1.1M;<br>API 1104;<br>AWS B4.0                                       |
| Fracture & Nick Break                                                                     | BS EN ISO 9017;<br>API 1104;<br>ASME IX;<br>AWS D1.1/D1.1M;<br>AWS B4.0;<br>ASME Sec II Part C                |
| Vickers Hardness Survey<br>Macro Scales: 5 & 10 kgf                                       | BS EN ISO 9015-1;<br>API 1104;<br>ASME IX;<br>AWS D1.1/D1.1M;<br>ASTM E92                                     |
| Macroscopic & Microscopic Examination of Welds                                            | BS EN ISO 17639;<br>API 1104;<br>ASME IX;<br>AWS D1.1/D1.1M;<br>ASTM E340;<br>AWS B4.0;<br>ASME Sec II Part C |
| Longitudinal Tensile Test on Weld Metal in Fusion Welded Joints                           | BS EN ISO 5178;<br>API 1104;<br>ASME IX;<br>AWS D1.1/D1.1M                                                    |

| Test(s):                                                      | Test Method(s):                                                                                                                                                                                                                          |
|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <u>Weldments (cont.):</u>                                     |                                                                                                                                                                                                                                          |
| Cross Weld Tensile Test on Weld Metal in Fusion Welded Joints | BS EN ISO 4136;<br>API 1104;<br>ASME IX;<br>AWS D1.1/D1.1M                                                                                                                                                                               |
| Reinforcing Steel Bar:                                        |                                                                                                                                                                                                                                          |
| Bend                                                          | BS 4449:1988 (Withdrawn) <sup>1</sup> ;<br>ASTM A615/A615M;<br>BS EN ISO 15630-1;<br>BS EN ISO 7438;<br>ISO 6935-2;<br>ASTM E290                                                                                                         |
| Rebend                                                        | BS 4449;<br>BS EN ISO 15630-1;<br>BS 4449:1997 (Withdrawn) <sup>1</sup> ;<br>BS EN ISO 15630-1:2002 (Withdrawn) <sup>1</sup> ;<br>BS EN ISO 15630-1:2010 (Withdrawn) <sup>1</sup> ;<br>BS EN ISO 15630-1;<br>ISO 6935-2                  |
| Tensile                                                       | BS 4449;<br>ASTM A615/A615M;<br>BS EN ISO 15630-1                                                                                                                                                                                        |
| Mass per Unit Length                                          | BS 4449;<br>ASTM A615/A615M;<br>BS EN ISO 15630-1                                                                                                                                                                                        |
| Slip Test                                                     | ISO 15835-2                                                                                                                                                                                                                              |
| Rib geometry                                                  | BS 4449;<br>BS EN ISO 15630-1;<br>ASTM A615/A615M;<br>BS 4449:1997 Amd't1 (Withdrawn) <sup>1</sup> ;<br>BS 4449;<br>BS EN ISO 15630-1:2002 (Withdrawn) <sup>1</sup> ;<br>BS EN ISO 15630-1:2010 (Withdrawn) <sup>1</sup> ;<br>ISO 6935-2 |
| Determination of Coating Weight                               | ASTM A90/A90M;<br>BS EN ISO 1460;<br>BS EN ISO 10346                                                                                                                                                                                     |
| <u>Corrosion:</u>                                             |                                                                                                                                                                                                                                          |
| Determining Average Grain Size (Comparison method)            | ASTM E112                                                                                                                                                                                                                                |
| Determining the Inclusion Content of Steel                    | ASTM E45 Method A                                                                                                                                                                                                                        |
| Preparation of Metallographic Specimens                       | ASTM E3                                                                                                                                                                                                                                  |
| Standard Practice for Micro etching Metals and Alloys         | ASTM E407;<br>BS EN ISO 17639                                                                                                                                                                                                            |

| Test(s):                                                                                             | Test Method(s):                                                |
|------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|
| Corrosion (cont.):                                                                                   |                                                                |
| Determining Volume Fraction of Ferrite by Systematic Manual Point Count                              | ASTM E562                                                      |
| Pitting Resistance of Stainless Steels and Related Alloys by Use of Ferric Chloride Solution         | ASTM G48<br>Method A and Method C                              |
| Detecting Susceptibility to Intergranular Attack in Austenitic Stainless Steels                      | ASTM A262<br>Practice A, Practice B, Practice C and Practice E |
| Detecting Detrimental Intermetallic Phase in Duplex Austenitic/Ferritic Stainless Steels             | ASTM A923<br>Method A and Method C                             |
| Detecting Susceptibility to Intergranular Corrosion in Wrought, Nickel-Rich, Chromium-Bearing Alloys | ASTM G28 Method A                                              |
| Analysis of Plain Carbon, Low Alloy and Stainless Steels by OES                                      | ASTM E415; ASTM A751;<br>ASTM E1086;<br>EMT-M-OP-CH-MD101      |

<sup>1</sup> This scope includes some specifications which are withdrawn but are specified by the clients or applicable to specific grades of steel



## Accredited Laboratory

A2LA has accredited

### AL FUTTAIM ELEMENT MATERIALS TECHNOLOGY DUBAI L.L.C

*Dubai, United Arab Emirates*

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 12<sup>th</sup> day of January 2026.

A blue ink signature of Mr. Trace McInturff, written in a cursive style.

Mr. Trace McInturff, Vice President, Accreditation Services  
For the Accreditation Council  
Certificate Number 5669.14  
Valid to December 31, 2027

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