SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

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CALIBRATION

Valid To: February 28, 2023 Certificate Number: 5669.03

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations[1, 7]:

I. Dimensional

Parameter/Equipment	Range	CMC[2] (±)	Comments
Length – Extensometers[3]			
Class 0.2 from 25 mm Class 0.5 from 10 mm Class 1 from 5 mm Class 2 from 5 mm	(0.01 to 50) mm	1.7 µm	BS EN ISO 9513
Class A from 15 mm Class B-1 from 1 mm Class B-2 from 1 mm Class C from 1 mm	(0.01 to 50) mm	1.7 µm	ASTM E83
Micrometer External[3]	Up to 25 mm	2.0 µm	JIS B 7502
Calipers[3]	Up to 300 mm	21 µm	JIS B 7507
Dial Gauges[3]	Up to 25 mm	1.2 µm	JIS B 7503 and ISO 463, errors of indication, repeatability and hysteresis only

Linear Measurement[3]	Up to 25 mm using micrometer Up to 300 mm using caliper Up to 1000 mm using steel rule	0.04 mm 0.07 mm 1.0 mm	Linear measurement using micrometer, caliper, or steel rule

II. Mechanical

Parameter/Equipment	Range	CMC[2, 5, 6] (±)	Comments
Force – Universal Testing Machines[3]			
Class 0.5, 1, 2, and 3	(0.20 to 500) kN	0.27 %	BS EN ISO 7500-1 and ASTM E4
Class 1, 2, and 3	0.10 kn to 3 MN	0.35 %	BS EN ISO 7500-1and ASTM E4
Concrete Cube Testing Machines[3]			
Class 0.5, 1, 2 and 3	(0.20 to 500) kN	0.27 %	BS EN ISO 7500-1
Class 1, 2 and 3	0.10 kN to 3 MN	0.35 %	BS EN ISO 7500-1[–]
Flatness of Platens and Spacing Blocks	(10 to 300) mm	0.01 mm	BS EN 12390-4 and BS 1881-115 (superseded)[4]
Force – Measuring Equipment[3]	(0.10 to 100) kN	0.33 %	BS 1377-1
Mass – Non-Automatic Weighing Machines[3]	100 g 200 g 500 g 1 kg 2 kg 5 kg 10 kg 20 kg 50 kg 100 kg	0.18 mg 0.35 mg 0.90 mg 2.7 mg 3.6 mg 9.0 mg 28 mg 360 mg 730 mg 1.3 g	Weights are available in OIML class. E2 from 1 mg to 500 mg, max grouped load 1 g. F2 from 1 g to 10 kg, max grouped load 15 kg. M1 20 kg max grouped load 100 kg. Other loads within the overall listed range may also be used. Weighing machines can be calibrated to ASTM E898 Requirements

III. Thermodynamics

Parameter/Equipment	Range	CMC[2] (±)	Comments
Thermometer[3] Temperature indicating systems/environmental monitoring (RH, RTD's, thermocouples) [3]	(-10 to 200) °C	0.30 °C	EMT-M-OP-AM-MD026B
Climate Chamber[3]	(35 to 200) °C	0.91 °C	EMT-M-OP-AM-MD145 ASTM E145 Only Temperature uniformity and midpoint

IV. Time and Frequency

Parameter/Equipment	Range	CMC[2] (±)	Comments
Timer[3]	12 hours	1.0 s	EMT-M-OP-AM-MD109

[1] This laboratory offers commercial calibration service and field calibration service.

[2] Calibration and Measurement Capability Uncertainty (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. CMC's represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.

[3] Field calibration service is available for this calibration. Please note the actual measurement uncertainties achievable on a customer's site can normally be expected to be larger than the CMC found on the A2LA Scope. Allowance must be made for aspects such as the environment at the place of calibration and for other possible adverse effects such as those caused by transportation of the calibration equipment. The usual allowance for the actual uncertainty introduced by the item being calibrated, (e.g. resolution) must also be considered and this, on its own, could result in the actual measurement uncertainty achievable on a customer's site being larger than the CMC.

[4] Calibration does not include the alignment and restraint of the upper machine platen required by BS EN 12390-4:2000 and BS 1881: part 115-1986 (superseded).

[5] In the statement of CMC, percentages are to be read as percent of reading, unless noted otherwise.

[6] The type of instrument or material being calibrated is defined by the parameter. This indicates the laboratory is capable of calibrating instruments that measure or generate the values in the ranges indicated for the listed measurement parameter.

[7] This scope meets A2LA's *P112 Flexible Scope Policy.*

Accredited Laboratory

A2LA has accredited

ELEMENT MATERIALS TECHNOLOGY ME LIMITED ABU DHABI

Abu Dhabi, UAE

for technical competence in the field of

Calibration

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 laboratory also meets R205 – Specific Requirements: Calibration Laboratory Accreditation Program. 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 9th day of February 2021.

Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 5669.03
Valid to February 28, 2023

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