SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017
& ANSI/NCSL Z540-1-1994

METTLER TOLEDO, LLC.
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Columbus, OH 43240
Charles Francis Phone: 614 438 4590

CALIBRATION

Valid To: July 31, 2026 Certificate Number: 1788.01

In recognition of the successful completion of the A2LA evaluation process, (including an assessment of the organization's compliance with A2LA's Calibration Program Requirements) accreditation is granted to this laboratory to perform the following calibrations[1, 7]:

I. Fluid

Parameter/Equipment	Range	CMC[2] (±)	Comments
Mettler Toledo Auto Titrator Burettes Only[3, 6, 8] –			
Volumetric	5 mL 10 mL 20 mL	3.0 µL 7.0 µL 8.0 µL	Gravimetric comparison method

II. Mechanical

Parameter/Equipment	Range[5]	CMC[2, 4] (±)	Comments
Balances[3, 6]	≤ 20 mg (> 20 to ≤ 50) mg (> 50 to ≤ 100) mg (> 100 to ≤ 200) mg (> 200 to ≤ 500) mg > 500 mg to ≤ 1 g	0.0011 mg 0.0013 mg 0.0016 mg 0.0019 mg 0.0025 mg 0.0031 mg	United States & Canada: Euramet cg-18 v4 OIML Class E2 weights OIML Class F1 weights

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Parameter/Equipment	Range[5]	CMC[2] (±)	Comments
Balances[3, 6] (cont)	(> 1 to ≤ 2) g (> 2 to ≤ 5) g (> 5 to ≤ 10) g (> 10 to ≤ 20) g (> 20 to ≤ 50) g (> 50 to ≤ 100) g (> 100 to ≤ 150) g (> 150 to ≤ 200) g (> 200 to ≤ 300) g (> 300 to ≤ 400) g (> 400 to ≤ 500) g (> 500 to ≤ 700) g (> 700 to ≤ 1000) g (> 1 to ≤ 1.5) kg (> 1.5 to ≤ 2) kg (> 2 to ≤ 2.3) kg (> 2.3 to ≤ 3) kg (> 3 to ≤ 4) kg (> 4 to ≤ 5.1) kg (> 5.1 to ≤ 6) kg (> 6 to ≤ 7) kg (> 7 to ≤ 8) kg (> 8 to ≤ 10) kg (> 10 to ≤ 15) kg (> 15 to ≤ 20) kg (> 20 to ≤ 26) kg (> 26 to ≤ 30) kg (> 30 to ≤ 40) kg (> 40 to ≤ 50) kg (> 50 to ≤ 60) kg (> 60 to ≤ 64) kg	0.0037 mg 0.0051 mg 0.0081 mg 0.0099 mg 0.014 mg 0.021 mg 0.034 mg 0.044 mg 0.063 mg 0.087 mg 0.089 mg 0.15 mg 0.18 mg 0.26 mg 0.34 mg 0.39 mg 0.52 mg 0.67 mg 0.85 mg 3.2 mg 3.3 mg 3.4 mg 6.0 mg 9.0 mg 12 mg 15 mg 18 mg 24 mg 30 mg 36 mg 37 mg	United States & Canada: Euramet cg-18 v4 OIML Class E2 weights OIML Class F1 weights

III. Thermodynamics

Parameter/Equipment	Range	CMC[2] (±)	Comments
Mettler Toledo DSC[3, 6]	(-57 to 419.5) °C (28.75 to 151.8) J/g	0.05 °C 0.05 J/g	Test point based on reference material used
Mettler Toledo TGA[3, 6]	(156.6 to 1550) °C	0.05 °C	Test point based on reference material used

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

[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. CMCs 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] In the calculation of CMC, *D* is based upon "Readability" of balance and the CMC of reference weights.

[5] For calibration of balances the "Range" equals the "Readability" of the balance.

[6] This accreditation includes those field service representatives located in the United States and Canada reporting to METTLER TOLEDO (Lab Division), Columbus, Ohio.

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

[8] Calibration and Measurement Capability (CMC) represents 100 percent of the burette volume.

Accredited Laboratory

A2LA has accredited

METTLER TOLEDO, LLC.

Columbus, OH

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 the requirements of ANSI/NCSL Z540-1-1994 and 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 31st day of July 2024.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 1788.01
Valid to July 31, 2026

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