

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Alpha-Liberty Company, Inc. 7185 Liberty Centre Drive, Suite E West Chester, Ohio 45069

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

CALIBRATION

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 27 September 2027 Certificate Number: AC-1127









SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Alpha-Liberty Company, Inc.

7185 Liberty Centre Drive, Suite E West Chester, Ohio 45069 Bernd Rau 513-777-1525

CALIBRATION

ISO/IEC 17025 Accreditation Granted: 15 September 2025

Certificate Number: AC-1127 Certificate Expiry Date: 27 September 2027

Mass and Mass Related

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Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Mass Artifacts	1 mg to 1 g (1 to 2) g (2 to 5) g	3.1 μg 3.9 μg 4.7 μg	Comparison to Class 0 Weights, Microbalance 0.000 000 1 g Resolution
Mass Artifacts	(5 to 10) g (10 to 50) g (50 to 100) g	7.2 μg 22 μg 35 μg	Comparison to Class 0 Weights, Semi-Micro Balance 0.000 001 g Resolution
Mass Artifacts	(100 to 500) g (500 to 1 000) g	0.12 mg 0.27 mg	Comparison to Class 0 Weights, Analytical Balance 0.000 1 g Resolution
Mass Artifacts	(1 000 to 2 000) g (2 000 to 5 000) g (5 000 to 10 000) g	1.2 mg 2 mg 4 mg	Comparison to Class 0 Weights, Precision Balance 0.001 g Resolution
Mass Artifacts ³	Up to 20 000 g (20 000 to 50 000) g	17 mg 27 mg	Comparison to Class 1 Weights, High Capacity Balance 0.01 g Resolution
Balances 1,2	Up to 2 g (2 to 5) g (5 to 50) g	0.1 mg 0.21 mg 1.8 mg	ASTM E617 Class 1 Weights and internal procedure QWI 02 utilized for the calibration of the weighing system.

This Scope of Accreditation, version 012, was last updated on: 15 September 2025 and is valid only when accompanied by the Certificate.







Mass and Mass Related

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Balances 1,2	Up to 200 g	4.2 mg	ASTM E617 Class 1 Weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Balances 1,2	Up to 1 000 g	21 mg	ASTM E617 Class 1 Weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Balances 1,2	Up to 10 000 g	0.10 g	ASTM E617 Class 1 Weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Balances 1,2	Up to 60 000 g	0.65 g	ASTM E617 Class 1 Weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Scales ^{1,2}	Up to 500 kg	14 g	ASTM E617 Class 4 weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Scales ^{1,2}	Up to 30 lb	0.004 2 lb	NIST Class F weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Scales ^{1,2}	Up to 500 lb	0.073 lb	NIST Class F weights and internal procedure QWI 02 utilized for the calibration of the weighing system.
Balances Minimum Sample Quantity ¹	Up to 60 kg	0.1 % of reading	Comparison to ASTM E617 Class 1 weights

Calibration and Measurement Capability (CMC) is expressed in terms of the measurement parameter, measurement range, expanded uncertainty of measurement and reference standard, method, and/or equipment. The expanded uncertainty of measurement is expressed as the standard uncertainty of the measurement multiplied by a coverage factor of 2 (*k*=2), corresponding to a confidence level of approximately 95%.

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Notes:

- 1. On-site calibration service is available for this parameter, since on-site conditions are typically more variable than those in the laboratory, larger measurement uncertainties are expected on-site than what is reported on the accredited scope.
- 2. The CMC for scales and balances is highly dependent upon the resolution of the unit under test. The uncertainties presented here do include the resolution of the unit under test. The resolution will be included in the reported measurement uncertainty at the time of calibration.
- 3. Weights in this range can be calibrated to ASTM Class 2.

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Jason Stine, Vice President





