



CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

Micromatter Technologies Inc USA dba Calmetrics Inc.
1340-6 Lincoln Avenue
Holbrook, NY 11741

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.

A handwritten signature in black ink, appearing to read 'R. Douglas Leonard Jr.', is positioned above a horizontal line.

R. Douglas Leonard Jr., VP, PILR SBU

Expiry Date: 31 May 2022

Certificate Number: L2319



This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
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).

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Micromatter Technologies Inc USA dba Calmetrics Inc.

1340-6 Lincoln Avenue
Holbrook, NY 11741
Frank Ferrandino 631-580-2522

CALIBRATION

Valid to: **May 31, 2022**

Certificate Number: **L2319**

Chemical Quantities

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Metal Alloy Composition	(1 to 99) % wt	0.3 % (absolute wt %)	ISO 3497 & ASTM-B568 (XRF) and internal methods.
Coating Thickness	25 Å to 100 µm	4.9 % of measured value	ISO 3497 & ASTM-B568 (XRF) and internal methods. Thickness equivalent of coating mass per area using conventional handbook density.
Copper plating thickness on non-conductive substrates	(2.5 to 130) µm	5% of measured value	Internal method using sheet microresistance gauge- Thickness equivalent of mass per area using conventional handbook density and resistivity

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Non-conductive coating thickness on non-magnetic substrates	5 µm to 2 mm	5% of measured value	ASTM method B244 (eddy current) and Internal method
Non-magnetic coating thickness on ferromagnetic substrates	5 µm to 2 mm	5% of measured value	ASTM method B499 (magnetic induction) and Internal method

Length – Dimensional Metrology

Parameter/Equipment	Range	Expanded Uncertainty of Measurement (+/-)	Reference Standard, Method, and/or Equipment
Plastic foil (shim) thickness	5 μ m to 2 mm	5% of measured value	Internal method – comparisons using Linear Encoder

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%.

Notes:

1. This scope is formatted as part of a single document including Certificate of Accreditation No. L2319.



R. Douglas Leonard Jr., VP, PILR SBU

