

Certificate No: 220822871-1

# METTLER TOLEDO

## METTLER-TOLEDO, LLC

201 Wolf Dr  
Thorofare NJ 08086  
1-800-METTLER



## Mass Calibration Certificate

### Customer Information

*Customer Name:* Houston Forensic Science Center      *City:* Houston  
*Address:* 500 Jefferson St Fl 13      *State / Province:* TX  
*Purchase Order:* 220817436      *Zip / Postal Code:* 77002-7300

### Measurement and Test Equipment Identification

*Serial Number:* 1000150532      *Date Received:* 04-Sep-2024  
*Manufacturer:* Troemner      *Condition:* Good  
*Asset Number:*      *Tolerance Class:* ASTM E617-18 Class 1

### Environmental Conditions

*Temperature:* 21.15 °C      *Barometric Pressure:* 759.15 mm Hg      *Relative Humidity:* 52 %RH

The standards used to perform this calibration have been compared to reference mass standards that are traceable to the SI through the National Institute of Standards and Technology under Test No 684/O-0000036014-22.

The weights calibrated for this report have been calibrated in accordance with the calibration laboratory's process. The calibration performed meets the criteria as described in the current revisions of ASTM E617 and OIML R111. This calibration also meets specifications as outlined in ISO/IEC 17025, ANSI/NCSL Z540-1-1994, and applicable documents.

This certificate may not be partially reproduced, except with prior written permission of the issuing laboratory. This certificate must not be used by the customer to claim product endorsement by NIST, NVLAP, or any other agency of the U.S. government.

*Calibration Date:* 19-Sep-2024

*Next Calibration Due:* 19-Sep-2025

*Calibration Technician:* Robotic Calibration

*Signature:*

A handwritten signature in black ink, appearing to read 'Annemarie Love', is written over a horizontal line.

Annemarie Love, Metrologist  
Approved Signatory

20-Sep-2024

---

Certificate No: 220822871-1

---

**As Found Data**

---

Nominal Value&Suffix	Serial Number	True Mass	Conventional Mass	Uncertainty (mg, k = 2)	Tolerance	Density (g/cm <sup>3</sup> )
2 mg	1000150532	0.0019993 g	0.0019987 g	0.0020	0.0100 mg	2.70

---



---

Certificate No: 220822871-1

---

**As Left Data**

---

Nominal Value&Suffix	Serial Number	True Mass	Conventional Mass	Uncertainty (mg, k = 2)	Tolerance	Density (g/cm <sup>3</sup> )
2 mg	1000150532	0.0019993 g	0.0019987 g	0.0020	0.0100 mg	2.70

---



---

Certificate No: 220822871-1

---

**Standards and Comparators Used**

---

Nominal Value&Suffix	Serial Number	Standard Set No.	Cal Due	Comparator Used	Cal Due	Procedure Used
2 mg	1000150532	A031	01-Jul-2025	A5XL-131	01-Jan-2025	Multi A-B

**Comments**

---

No remarks



## Definitions

---

**Nominal Value** - The value as labeled on the weight or defined by shape in accordance with OIML R111 for milligram weights.

**True Mass** - The mass value of the weight if measured in a vacuum.

**Conventional Mass** - For a mass at 20 °C, "Conventional Mass" is the mass of a reference standard of density 8000 kg/m<sup>3</sup> which it balances in air with a density of 1.2 kg/m<sup>3</sup>. This value should be referenced when testing the accuracy of a weighing device using any of the nominal values contained in this certificate. The As Found results will equal the As Left in cases where no adjustment or replacement was required.

**Uncertainty** - All Uncertainty values are reported at approximately 95% confidence level (k=2). The uncertainty value does not include a component for the affects due to magnetism.

**Tolerance** - The acceptable range of deviation (positive and negative) from the nominal value, including the uncertainty, as defined by ASTM and OIML for the respective classes.

**Density** - The assumed density of the material used by the manufacturer.

**Calibration Process** - This calibration was performed in the Level I Mass Metrology Laboratory at 201 Wolf Dr Thorofare, New Jersey 08086 unless otherwise noted in Comments.

**OOT** - The As Found measurement result combined with the uncertainty exceeded the tolerance for the specified weight class.

**A** - Weight was adjusted after As Found testing to within the appropriate tolerance class.

**R** - The received weight was replaced due to an out of tolerance condition and the weight was not adjustable or the weight for this nominal value was missing.