



Hugh E. Weathers
Commissioner

State of South Carolina Department of Agriculture

Metrology Laboratory

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CERTIFICATE OF CALIBRATION FOR

One weight set ranging from 2 milligrams through 100 grams consisting of 20 test standards.

<u>Manufacturer</u>	<u>Serial Number</u>	<u>State Test Number</u>
Rice Lake	D336	SC120703-2-17

Submitted by

Porter Scales
1721 Lake Wheeler Road
Raleigh, NC 27603

The test weights described above have been compared with the standards of the State of South Carolina and were found (adjusted) to be within ASTM Class 2 tolerance with the following exceptions:

Date of Test: 05/23/17

Robert L. McGee, Director
Metrology Laboratory

Comments:

- This calibration was performed within the requirements of the laboratory Quality Management System version 6, Jan 2010 which is compliant with the ISO/IEC 17025, 2005 standard. The laboratory has demonstrated measurement proficiency through training and interlaboratory comparisons and has been issued a NIST Certificate of Measurement Traceability effective through December 31, 2017.
- This calibration has metrological traceability to the International System of Units (SI) through South Carolina primary standards traceable to the National Institute of Standards and Technology through NIST Test Numbers 684/283739-13, 684/288167-16.

Calibration Due Date: 05/31/19

Purchase Order Number: FG04102017

South Carolina Department of Agriculture
Supplemental Calibration Data

Manufacturer

Rice Lake

Serial Number

D336

State Test Number

SC120703-2-17

1. Identification or serial number of standard (s) used to perform the calibration.

SC Mass Standards Set B

2. Identification or serial numbers of the NIST standard (s) to which state standards (s) is traceable.

684/283739-13, 684/288167-16

3. Controlled conditions employed for the calibration, i.e., temperature and humidity, etc.

Temperature: 22.14 °C to 22.60 °C

Humidity: 50.58 % to 53.59 % RH

4. Identification of the procedure (s) followed for the calibration.

Comparison with mass standards using procedure SOP 4 from NIST IR 6969

5. Date of calibration.

05/23/17

Date received.

04/14/17

6. The calibration values reported below are Conventional Mass corrections based on a reference density of 8.0 g/cm³ and a reference temperature of 20 °C. Note: If the standard was not adjusted the “As Found” and “As Left” values are the same.

Weight Identification	Nominal	“As Found” Correction (mg)	“As Left” Correction (mg)	Uncertainty (mg)	Tolerance (mg)	Assumed Density (g/cm ³)
	2 mg	-0.001		0.004	0.014	7.95
	3 mg	0.005		0.004	0.014	7.95
	5 mg	0.006		0.004	0.014	7.95
	10 mg	0.009		0.004	0.014	7.95
	20 mg	0.004		0.004	0.014	7.95
	30 mg	-0.001		0.004	0.014	7.95
	50 mg	-0.002		0.004	0.014	7.95
	100 mg	0.004		0.004	0.025	7.95
	200 mg	0.002		0.004	0.025	7.95
	300 mg	-0.011		0.004	0.025	7.95
	500 mg	0.007		0.004	0.025	7.95
	1 g	0.042		0.004	0.054	7.95
	2 g	0.021		0.004	0.054	7.95
	3 g	0.032		0.004	0.054	7.95
	5 g	-0.025		0.005	0.054	7.95
	10 g	-0.01		0.02	0.074	7.95
	20 g	-0.03		0.02	0.10	7.95
	30 g	-0.08		0.02	0.15	7.95
	50 g	-0.32	0.08	0.03	0.25	7.95
	100 g	-0.41		0.04	0.50	7.95
<p>The measurement uncertainty is calculated at k=2 for an approximate 95 percent confidence level. The uncertainties reported represent conditions at time of test.</p>						