CERTIFICATE OF CALIBRATION

Issue:- 97107_10 | Certificate Number: **97107** | Date of Issue: **22-Dec-23**

Approved Signatory: **Mark Norfolk**

 Signed:

UKAS CALIBRATION 0352

Kent County Council kent.gov.uk

Submitter:-
Mecmesin Limited
Newton House
Spring Copse Business Park
Slinfold
West Sussex
RH13 0SZ

Issued by:-
Kent Scientific Services
8 Abbey Wood Road
Kings Hill
West Malling
Kent
ME19 4YT
Tel: 03000 415 100
Fax: 01732 220006

EQUIPMENT:	Weights
SERIAL NUMBER:	MS1 (3034)
MAKE/TYPE:	Reverifiations Ltd
STANDARDS USED:	Local Standard Set 16521
DATE RECEIVED:	20 December 2023
DATE CALIBRATED:	21 December 2021
DETAILS:	13 Stainless Steel

MEASUREMENTS:

Kent Scientific Services method used: CAL SMALL, Calibration of Small Masses.
The calibrations took place in a controlled environment with the temperature held between 18°C and 22°C, and with the relative humidity held between 40% and 60%.
The measurement results obtained in the table, where each measured value given represents not the true mass, but the mass of a hypothetical weight of density 8,000 $kg.m^{-3}$, which in air of density 1.2 $kg.m^{-3}$ would balance the corresponding weight identified in the first column at 20°C.
The method of weighing was by substitution (Borda's method). In each instance the standard weight used had been calibrated by UKAS Calibration Laboratory number 0474, 0260 or 0352 within the previous three years.
The uncertainty of measurements for each of the different denominations is listed in the last column of the table
Duplicate weights, where present, are indicated by a dot or dots.
Customer supplied information is notated with a ~, and results relate only to the item(s) calibrated.
Unless otherwise notated, samples are tested in as received condition at Kent Scientific Services.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

TABLE OF MEASUREMENT RESULTS

Nominal Mass	Measured Value	Error from Nominal	Estimated Uncertainty
1 kg	1,000.001 6 g	+ 1.6 mg	± 3.0 mg
500 g	500.001 6 g	+ 1.6 mg	± 1.5 mg
200 g	199.999 59 g	- 0.41 mg	± 0.60 mg
200 g°	200.000 07 g	+ 0.07 mg	± 0.60 mg
100 g	100.000 20 g	+ 0.20 mg	± 0.30 mg
50 g	49.999 97 g	- 0.03 mg	± 0.20 mg
20 g	19.999 79 g	- 0.21 mg	± 0.16 mg
20 g°	19.999 98 g	- 0.02 mg	± 0.16 mg
10 g	9.999 83 g	- 0.17 mg	± 0.12 mg
5 g	4.999 98 g	- 0.02 mg	± 0.10 mg
2 g	1.999 915 g	- 0.085 mg	± 0.080 mg
2 g°	2.000 078 g	+ 0.079 mg	± 0.080 mg
1 g	1.000 071 g	+ 0.071 mg	± 0.060 mg

END OF RESULTS

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor k=2 providing a level of confidence of approximately 95%. The uncertainty evaluation has been carried out in accordance with UKAS requirements.