



Number of Certificate 0000000

**SAMPLE**

## Calibration Certificate

Client name	○○○○
Client address	○○○○○○○○
Calibration site	MURAKAMI KOKI CO., LTD. 10-31 2-chome Akagawa Asahi-ku Osaka, Japan
Calibration object	Weight
Manufacturer	MURAKAMI KOKI CO., LTD.
Type and Quantity	0.5 mg ~ 0.1 mg 4 pcs.
Article number	A
Calibration item	Conventional mass
Calibration method	Per our calibration manual (Document No.MJW-03)
Top reference	Reference (ID/Certificate number : ◎/000000)
Reference used by calibration	Working standard (ID/Certificate number : T2/M000000)
Calibration results	As per 2 page
Calibration conditions	As per 2 page
Date of application	6 Jan. 2020
Date of performance of calibration	6 Jan. 2020

This is to certify that the calibration results of the above article.

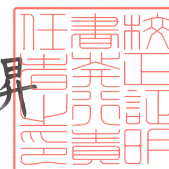
Date of issue : 6 Jan. 2020

MURAKAMI KOKI CO., LTD.

10-31 Akagawa 2-chome Asahi-ku Osaka, Japan

The calibration authority

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This certificate is based on article 144 of the Measurement Act and indicates the result of calibration in accordance with measurement standards traceable to Primary Measurement Standards (National Standards) which realizes the physical units of measurement according to the International System of Units (SI). The accreditation symbol is attestation of which the result of calibration is traceable to Primary Measurement Standards (National Standards).

The certificate shall not be reproduced except in full, without the written approval of the issuing laboratory.

The calibration laboratory who issued this calibration certificate conforms to ISO/IEC 17025:2017.

This calibration certificate was issued by the calibration laboratory accredited by IAJapan who is a signatory to the Mutual Recognition Arrangement (MRA) of International Laboratory Accreditation Cooperation (ILAC) and Asia Pacific Accreditation Cooperation (APAC). This(These) calibration result(s) may be accepted internationally through ILAC/APAC MRA.



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**SAMPLE**Calibration results

Nominal value	Article number	Marking	Conventional mass <sup>1)</sup>	Expanded <sup>2)</sup> uncertainty
0.5 mg	A		0.5 mg + 0.00014 mg ± 0.00067 mg	
0.2 mg	A	1	0.2 mg + 0.00156 mg ± 0.00039 mg	
0.2 mg	A	2	0.2 mg + 0.00068 mg ± 0.00039 mg	
0.1 mg	A		0.1 mg + 0.00061 mg ± 0.00033 mg	

- Note 1) The conventional mass is the mass of a reference weight of a density of 8000 kg/m<sup>3</sup> which balances in air of a reference density of 1.2 kg/m<sup>3</sup> and at a temperature of 20 °C.
- 2) The expanded uncertainty corresponds to a level of confidence of approximately 95 % with a coverage factor  $k$  being equal to 2.

Calibration conditions

Temperature 22.5 °C to 23.0 °C, Atmospheric pressure 1016 hPa to 1025 hPa, Relative humidity 44 % to 54 %

Mass comparators

XP6UV

Conformity assessment

Accuracy class of conventional mass : class 00

Nominal value	Article number	Marking	Conventional mass deviation	Expanded uncertainty	Maximum permissible errors	Assessment
0.5 mg	A		+ 0.00014 mg	± 0.00067 mg	± 0.003 mg	Conform
0.2 mg	A	1	+ 0.00156 mg	± 0.00039 mg	± 0.003 mg	Conform
0.2 mg	A	2	+ 0.00068 mg	± 0.00039 mg	± 0.003 mg	Conform
0.1 mg	A		+ 0.00061 mg	± 0.00033 mg	± 0.003 mg	Conform

- Remark 1) The assessment criterion is ASTM E617-18 4.1, as follows  
 $| \text{Expanded uncertainty} | \leq | \text{Maximum permissible errors} | / 3$ ,  
 $| \text{Conventional mass deviation} | + | \text{Expanded uncertainty} | \leq | \text{Maximum permissible errors} |$ .
- 2) The expanded uncertainty corresponds to a level of confidence of approximately 95 % with a coverage factor  $k$  being equal to 2.

Note If the decimal places of [Conventional mass deviation] and [Expanded uncertainty] is greater than the decimal places of [Maximum permissible errors], we consider its missing digits as 0 for our conformity assessment.  
 End of the certificate.