

Deutsche Akkreditierungsstelle GmbH
German Accreditation Body

Annex to the Accreditation Certificate D-K-15138-01-00
according to ISO/IEC 17025:2005

Period of validity: 16.12.2015 to 05.12.2017

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Holder of certificate:

Instituto Nacional de Tecnología, Normalización y Metrología, INTN
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Accredited since: 04.04.2008

Calibrations in the fields:

Mechanical quantities

- **Mass (mass standards)**

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Permanent Laboratory

| Measured quantity / Calibration item | Range | Measurement conditions / procedure | Best measurement capability ¹⁾ | Remarks | | |
|--------------------------------------|-------------------------------|------------------------------------|---|--|--------|---|
| Conventional Mass | 1 mg | Direct comparison | 0,003 mg | OIML recommendation R 111, class E ₂ | | |
| | 2 mg | | 0,003 mg | | | |
| | 5 mg | | 0,003 mg | | | |
| | 10 mg | | 0,003 mg | | | |
| | 20 mg | | 0,003 mg | | | |
| | 50 mg | | 0,004 mg | | | |
| | 100 mg | | 0,005 mg | | | |
| | 200 mg | | 0,006 mg | | | |
| | 500 mg | | 0,008 mg | | | |
| | 1 g | | 0,010 mg | | | |
| | 2 g | | 0,012 mg | | | |
| | 5 g | | 0,016 mg | | | |
| | 10 g | | 0,020 mg | | | |
| | 20 g | | 0,025 mg | | | |
| | 50 g | | 0,03 mg | | | |
| | 100 g | | 0,05 mg | | | |
| | 200 g | | 0,10 mg | | | |
| | 500 g | | 0,25 mg | | | |
| | Conventional Mass | | 1 kg | | 0,5 mg | OIML recommendation R 111, class F ₁ |
| | | | 2 kg | | 3,0 mg | |
| 5 kg | | 8,0 mg | | | | |
| 10 kg | | 16 mg | | | | |
| 20 kg | | 30 mg | | | | |
| Conventional Mass | | 1 mg to 100 mg | 0,016 mg | For free nominal values m_c : conventional mass | | |
| > 100 mg to 200 mg | 0,020 mg | | | | | |
| > 200 mg to 500 mg | 0,025 mg | | | | | |
| > 500 mg to 1 g | 0,03 mg | | | | | |
| > 1 g to 2 g | 0,04 mg | | | | | |
| > 2 g to 5 g | 0,05 mg | | | | | |
| > 5 g to 10 g | 0,06 mg | | | | | |
| > 10 g to 20 g | 0,08 mg | | | | | |
| > 20 g to 50 g | 0,10 mg | | | | | |
| > 50 g to 100 g | 0,16 mg | | | | | |
| > 100 g to 1 kg | $1,6 \cdot 10^{-6} \cdot m_c$ | | | | | |
| > 1 kg to 20 kg | $5 \cdot 10^{-6} \cdot m_c$ | | | | | |

Abbreviation used:

OIML International Organization of Legal Metrology

¹⁾ The best measurement capabilities are stated according to EA-4/02. These are expanded uncertainties of measurement with a coverage probability of 95% and have a coverage factor of $k = 2$ unless stated otherwise. Uncertainties without unit are relative uncertainties referring to the measurement value unless stated otherwise.