



International Management Accreditation Board

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Technical Note for the Measurement Traceability in the Accreditation Process

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Area of application

This Technical Note specifies the forms of objective evidence, by which the proof of measurement traceability in the context of the accreditation process is provided by testing and calibration laboratories, inspection bodies, producers of reference materials and, where applicable, for the accreditation of providers of proficiency testing schemes and bodies operating product certification systems



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The following certificates (hereinafter referred to as reports) are recognized as a proof of the measurement traceability for the accreditation of testing and calibration laboratories, inspection bodies, producers of reference materials, and, where applicable, for the accreditation of providers of proficiency testing schemes and bodies operating product certification systems.

1. Reports by designated institutes (DI) within the local territory
2. Calibration certificates of internationally accredited calibration laboratories (with accreditation symbol) in the area covered by the accreditation
3. Calibration certificates of foreign calibration laboratories (with accreditation symbol) covered by the accreditation with the accreditation body to be a signatory to the Multilateral Agreement of EA or ILAC for calibration.
4. Reports of foreign national metrology institutes or designated institutes
5. Reports of certified reference materials with assigned quantity values for which there is a corresponding entry (e. g. certified reference materials) and reports of certified reference materials produced by producers of reference materials accredited according ISO Guide 34:2009 (with accreditation symbol)
6. Reports of certified reference materials with assigned quantity values for which there is a corresponding entry
7. Reports of certified and non-certified reference materials with assigned quantity values produced by non-accredited reference material producers if it is demonstrated, that they are suitable for the intended use (DIN EN ISO/IEC 17025:2005 Section 4.6.2 or DIN EN ISO 15189:2014 Section 4.6)
8. Reports without accreditation symbol

All of the following reports shall meet the requirements of DIN EN ISO/IEC 17025:2005, in particular they shall contain a statement to the measurement uncertainty and measurement traceability. The recognition of these reports as a proof of measurement traceability shall be justified and documented in the assessment report. The relevant competence of the issuing body shall be assessed for each report and this assessment shall be documented.

Reports without accreditation symbol issued by accredited testing or calibration laboratories shall be treated as calibration certificates issued by non-accredited bodies.

Reports of internal calibrations

This type of measurement traceability in general is possible for all conformity assessment bodies mentioned in the scope of this technical note. For assessments of the competence of the body for the special calibration in accordance with DIN EN ISO/IEC 17025:2005, assessors and technical experts for testing and calibration laboratories, inspection bodies in their respective scope are used. Technical experts shall only be used when accompanied by an appointed assessor of the accreditation activities K, PL, ML, IS, RM, EP or ZE.



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Further information for assessment details are given in the annex.

Reports without accreditation symbol, issued by non-accredited bodies or by accredited testing or calibration laboratories

This type of measurement traceability in general is possible for all conformity assessment bodies mentioned in the scope of this technical note. For assessments of the competence of the bodies for the special calibration in accordance with DIN EN ISO/IEC 17025:2005 assessors and technical experts for testing and calibration laboratories, inspection bodies in their respective scope are used. Technical experts shall only be used when accompanied by an appointed assessor of the accreditation activities K, PL, ML, IS, RM, EP or ZE.

Further information for assessment details are given in the annex.

Reports without accreditation symbol, issued by accredited calibration laboratories covered by their accreditation scope are not subject to surveillance as part of an accreditation process. Therefore, they shall be treated as reports issued by non-accredited bodies.

Reports without accreditation symbol, issued by Local verification authorities

This type of measurement traceability in general is possible for all conformity assessment bodies mentioned in the scope of this technical note. Each Local verification authority maintains a quality management system according to DIN EN ISO/IEC 17025:2005.

Technical experts shall be used only when accompanied by an appointed assessor of the accreditation activity K. The annex gives further information for the scope of evaluation of the verification.

Where the measurement traceability is technically not possible, the approach for measurement traceability to appropriate standards stated in DIN EN ISO/IEC 17025:2005 section 5.6.2.1.2 shall be applied.

The conformity assessment bodies mentioned within the scope of this document are recommended primarily to demonstrate the measurement traceability through reports according to item 1 to 5. Where the measurement traceability is not carried out according to item 1 to 5, only one route can be followed to give an equivalent confidence in the measurement traceability. This path is described in point 6. In this case, the bodies seeking accreditation in this case are responsible to demonstrate measurement traceability. IMAB assesses this evidence and the body's ability to evaluate it using the criteria outlined in the annex.



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Annex To demonstrate the technical competence of the conformity assessment body that perform internal calibrations or issue reports without accreditation symbol, the assessment may include, but is not limited to, the following:

1. Documentation of the validation of self-developed or modified standardized calibration methods (DIN EN ISO/IEC 17025:2005 section 5.4.5) or verification using standardized calibration methods
2. Methods for the estimation of measurement uncertainty including the uncertainty budgets (DIN EN ISO/IEC 17025:2005 section 5.4.6).
3. Necessary equipment for special calibration and its suitability to achieve the required accuracy. Program for calibration of equipment and documentation/evidence of measurement traceability (DIN EN ISO/IEC 17025:2005 section 5.6).
4. Documentation/evidence of assuring the quality of calibration results (DIN EN ISO / IEC 17025: 2005. section 5.9, for example, inclusion of proficiency tests or comparison with one or more accredited calibration laboratories).
5. Documentation/evidence of the competence of staff by e. g. training certificates for the special calibrations (DIN EN ISO/IEC 17025:2005 section 5.2).
6. Documentation/evidence of the suitability of accommodation and environmental conditions (DIN EN ISO/IEC 17025:2005 section 5.3). Where it is necessary for the special calibration method the environmental conditions shall traceably be recorded.
7. Inclusion of special calibration in internal audits (DIN EN ISO/IEC 17025:2005 section 4.14).
8. On-site visit of the issuing body.

Classification of IMAB accredited calibration certificates

For calibration laboratories accredited by IMAB, the requirements for calibration certificates are specified in the document. More information can be retrieved from website (www.imacb.com)

List of used abbreviations

Accreditation	
PL	Testing laboratories according to DIN EN ISO/IEC 17025:2005
K	Calibration laboratories according to DIN EN ISO/IEC 17025:2005
ML	according to DIN EN ISO 15189:2014
IS	Inspection bodies according to DIN EN ISO/IEC 17020:2012
RM	Reference material producers according to ISO Guide 34:2009
EP	Proficiency test providers according to DIN EN ISO/IEC 17043:2010
ZE	Bodies operating product certification systems according to DIN EN ISO/IEC 17065:2012