

Deutsche Akkreditierungsstelle GmbH

Annex to the Accreditation Certificate D-RM-11183-01-00 according to DIN EN ISO 17034:2017

Valid from: 30.04.2019

Date of issue: 30.04.2019

Holder of certificate:

**IfEP Institut für Eignungsprüfung GmbH
Daimlerstraße 8, 45770 Marl**

Reference material production in the fields:

Production of certified reference material in the field of materials testing

- **Tensile test: Flat- and Round specimen**
- **Charpy impact test: Charpy-V-notch reference specimen**

The reference material producer keeps a current list of certified reference materials in the accredited area.

This document is a translation. The definitive version is the original German annex to the accreditation certificate.

*The certificate together with its annex reflects the status at the time of the date of issue. The current status of the scope of accreditation can be found in the database of accredited bodies of Deutsche Akkreditierungsstelle GmbH.
<https://www.dakks.de/en/content/accredited-bodies-dakks>*

1 Certified Round Reference Specimen

Product	Property	Range	Relative uncertainty* in % of reference value	Characterization Strategy
Round test specimens made of metal; Nominal diameter: 5 mm - 16 mm	Tensile strength	(200 - 1.500) MPa	0,8	c und d)
	Proof strength	(180 - 1.200) MPa	0,8	c)
	Elongation after fracture	(8 - 40) %	0,5	c)
	Reduction of area after fracture	(8 - 50) %	0,5	c)

*) expanded, combined measurement uncertainty (k for a confidence level of 95%)

- c) Characterization of the measurand using a network of competent laboratories according to ISO 17034 clause 7.12.3 Note 1c).
- d) Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory according to ISO 17034 clause 7.12.3 Note 1d).

2 Certified Flat Reference Specimen

Product	Property	Range	Relative uncertainty* in % of reference value	Characterization Strategy
Flat test specimens made of metal; 0,1 mm - 3 mm	Tensile strength	(180- 1.000) MPa	0,4	c)
	Proof strength	(150 - 1.000) MPa	0,8	c)
	Elongation after fracture	(10 - 50) %	0,5	c)
Flat test specimens made of metal; > 3 mm	Tensile strength	(250 - 1.000) MPa	0,4	c)
	Proof strength	(180 - 1.000) MPa	0,7	c)
	Elongation after fracture	(10 - 50) %	0,5	c)

*) expanded, combined measurement uncertainty (k for a confidence level of 95%)

- c) Characterization of the measurand using a network of competent laboratories according to ISO 17034 clause 7.12.3 Note 1c).

3 Certified Charpy- Reference specimen

Product	Property	Range	Uncertainty*	Characterization Strategy
Charpy specimens made of metal V-Notch 2 mm striker	Impact energy	(15 - < 40) J (40 - 300) J	1 J 6% of reference value	c) und d)
Charpy specimens made of metal V-Notch 8 mm striker	Impact energy	(15 - < 40) J (40 - 300) J	1,2 J 6% of reference value	c) und d)

*¹⁾ expanded, combined measurement uncertainty (k for a confidence level of 95%)

- c) Characterization of the measurand using a network of competent laboratories according to ISO 17034 clause 7.12.3 Note 1c).
- d) Value transfer from an RM to a closely matched candidate RM performed using a single measurement procedure performed by one laboratory according to ISO 17034 clause 7.12.3 Note 1d).