

Deutsche Akkreditierungsstelle GmbH  
German Accreditation Body

Annex to the Accreditation Certificate D-K-15091-01-00  
according to DIN EN ISO/IEC 17025:2005

Period of validity: 17.12.2015 to 16.12.2020

Date of issue: 17.12.2015

Holder of certificate:

**LCPN-M, CESMEC S.A.**

**Av. Marathon 2595, Casilla 14036 Correo 21, 7810552 Macul, Santiago, Chile**

Head: Fernando Andrés García González

Deputy: Fernando Alberto Leyton Lucero

Accredited since: 01.02.2001

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 <sup>1)</sup>	Remarks
<b>Mass</b>				
Conventional Mass	1 mg, 2 mg, 5 mg, 10 mg		0.002 mg	OIML recommendation R111-1:2004, class E <sub>2</sub>
	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		0.015 mg	
	10 g		0.020 mg	
	20 g		0.025 mg	
	50 g		0.030 mg	
	100 g		0.05 mg	
200 g	0.10 mg			
500 g	0.25 mg			
Conventional Mass	1 kg		0.5 mg	
	2 kg		1.0 mg	
	5 kg		2.5 mg	
	10 kg		5 mg	
	20 kg		10 mg	
Conventional Mass	50 kg		75 mg	OIML recommendation R111-1:2004, class F <sub>1</sub>
Conventional Mass	1 mg to 100 mg		0.016 mg	For free nominal values <i>m<sub>c</sub></i> : 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 20 kg		$1.6 \cdot 10^{-6} \cdot m_c$	
	> 20 kg to 50 kg		$5 \cdot 10^{-6} \cdot m_c$	

<sup>1)</sup> 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.