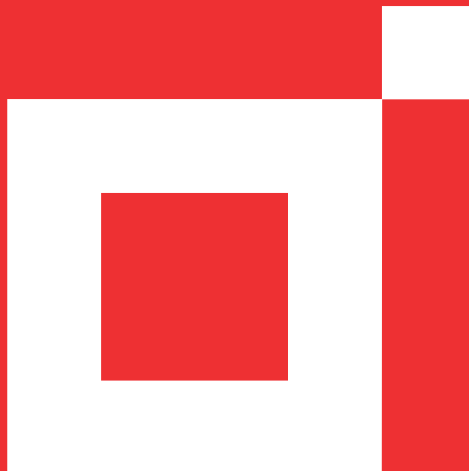




Potvrda o akreditaciji Accreditation Certificate

Ovime se utvrđuje da je
This is to recognize that

SARTORIUS CROATIA-LIBRA ELEKTRONIK d.o.o.,
Laboratorij za umjeravanje neautomatskih vaga, utega, klipnih
pipeta i mjerila temperature
Savska 45a, HR-10290 Zaprešić

osposobljen prema zahtjevima norme
is competent according to
HRN EN ISO/IEC 17025:2017
(ISO/IEC 17025:2017;
EN ISO/IEC 17025:2017)
za/to carry out

Umjeravanje neautomatskih vaga, utega, mjerila obujma i
temperature
Calibration of non-automatic weighing instruments, weights, volume and
temperature gauges

u području opisanom u prilogu koji je sastavni dio ove potvrde o
akreditaciji.
for the scope described in the annex which is the constituent part of
this accreditation certificate.

Br./No.: 2287
Klasa/Ref.No.: 383-02/20-80/016
Urbroj/Id.No.: 569-02/10-25-30
Zagreb, 2025-06-04

Akreditacija istječe-Accreditation expiry: 2026-01-27
Prva akreditacija-Initial accreditation: 2010-12-27

HAA je potpisnica multilateralnog sporazuma s Europskom organizacijom za akreditaciju (EA)
HAA is a signatory of the European co-operation for Accreditation (EA) Multilateral Agreement

Ravnateljica:
Director General:
mr. sc. Mirela Zečević



HAA

Hrvatska akreditacijska agencija
Croatian Accreditation Agency

PRILOG POTVRDI O AKREDITACIJI br.: 2287

Annex to the Accreditation Certificate No.:

Klasa/Ref. No.: 383-02/20-80/016

Urbroj/Id. No.: 569-02/11-25-29

Datum izdanja priloga /Annex Issued on: 2025-06-04

Zamjenjuje prilog/Replaces Annex:

Klasa/Ref. No.: 383-02/20-80/016

Urbroj/Id. No.: 569-02/11-23-19

Datum/Date: 2023-04-24

Norma: HRN EN ISO/IEC 17025:2017

Standard: (ISO/IEC 17025:2017; EN ISO/IEC 17025:2017)

Akreditacija istječe: 2026-01-27

Accreditation expiry:

Prva akreditacija: 2010-12-27

Initial accreditation:

Akreditirani laboratorij

Accredited laboratory

SARTORIUS CROATIA - LIBRA ELEKTRONIK d.o.o.

**Laboratorij za umjeravanje neautomatskih vaga, utega, klipnih pipeta i mjerila
temperature**

Savska 45A, HR-10290 Zaprešić

Područje akreditacije:

Scope of Accreditation:

Umjeravanje neautomatskih vaga, utega, mjerila obujma i temperature

*Calibration of non-automatic weighing instruments, weights, volume and temperature
gauges*

Važeće izdanje Priloga dostupno je na web adresi: www.akreditacija.hr

Valid issue of the Annex is available at the web address: www.akreditacija.hr

Ravnateljica:

Director General:

mr. sc. Mirela Zečević

PODRUČJE AKREDITACIJE/ *SCOPE OF ACCREDITATION*

Mjerne sposobnosti umjeravanja (CMC)/ *Calibration and Measurement Capabilities (CMC)*

Umjeravanje u laboratoriju/ <i>Calibration performed in a laboratory</i>					
Br. No.	Mjerna veličina/ Mjerilo <i>Measurand/ Calibration item</i>	Mjerno područje <i>Measurand range</i>	Proširena mjerna nesigurnost <i>Expanded Uncertainty</i>	Metoda umjeravanja <i>Calibration method</i>	Napomene <i>Remarks</i>
1.	Masa/ Elektroničke neautomatske vage <i>Mass/ Non-automatic weighing instruments</i>	$m \leq 10 \text{ g}$	0,013 mg	Vlastiti postupak <i>In-house procedure</i> 17025_V7_19_31, izdanje/ <i>datum</i> <i>edition/ date</i> 07/ 2019-11-08 EURAMET cg-18 v. 4.0, 2015-11	
		$10 \text{ g} < m \leq 100 \text{ g}$	0,10 mg		
		$100 \text{ g} < m \leq 200 \text{ g}$	0,17 mg		
		$200 \text{ g} < m \leq 500 \text{ g}$	0,39 mg		
		$500 \text{ g} < m \leq 1 \text{ kg}$	0,88 mg		
		$1 \text{ kg} < m \leq 2 \text{ kg}$	1,6 mg		
		$2 \text{ kg} < m \leq 5 \text{ kg}$	6,1 mg		
		$5 \text{ kg} < m \leq 10 \text{ kg}$	7,2 mg		
		$10 \text{ kg} < m \leq 20 \text{ kg}$	19 mg		
		$20 \text{ kg} < m \leq 40 \text{ kg}$	81 mg		
		$40 \text{ kg} < m \leq 220 \text{ kg}$	350 mg		
		$220 \text{ kg} < m \leq 3000 \text{ kg}$	45 g		

Umjeravanje u laboratoriju/ Calibration performed in a laboratory					
Br. No.	Mjerna veličina/ Mjerilo Measurand/ Calibration item	Mjerno područje Measurand range	Proširena mjerna nesigurnost Expanded Uncertainty	Metoda umjeravanja Calibration method	Napomene Remarks
2.	Masa/ Utezi Mass/ Weights E ₂ , F ₁ , F ₂ , M ₁ , M ₂ , M ₃	1 mg	0,002 mg	Vlastiti postupak In-house procedure 17025_V11_21_30, izdanje/ datum edition/ date 11/2021-12-27 OIML R111-1:2004	
		2 mg	0,002 mg		
		5 mg	0,002 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		
		1 kg	0,5 mg		
		2 kg	1,0 mg		
		5 kg	2,5 mg		
		10 kg	5,0 mg		
3.	Masa/ Utezi Mass/ Weights F ₁ , F ₂ , M ₁ , M ₂ , M ₃	20 kg	30 mg		

Umjeravanje u laboratoriju/ Calibration performed in a laboratory					
Br. No.	Mjerna veličina/ Mjerilo Measurand/ Calibration item	Mjerno područje Measurand range	Proširena mjerna nesigurnost Expanded Uncertainty	Metoda umjeravanja Calibration method	Napomene Remarks
4.	Obujam/ Klipne pipete Volume/ Piston pipettes	1 µl do/to 10 µl	0,08 µl	Vlastiti postupak/ <i>In-house procedure</i> 17025_V5_23_92 izdanje/ datum, edition/ date 05/2023-02-03 HRN EN ISO 8655-6:2022 (ISO 8655-6:2022; EN ISO8655-6:2022)	
		11 µl do/to 50 µl	0,12 µl		
		51 µl do/to 100 µl	0,22 µl		
		101 µl do/to 200 µl	0,42 µl		
		201 µl do/to 500 µl	1,0 µl		
		501 µl do/to 1000 µl	2,0 µl		
		1,01 ml do/to 2 ml	4,2 µl		
		2,01 ml do/to 5 ml	10 µl		
		5,01 ml do/to 10 ml	20 µl		
		10,01 ml do/to 20 ml	40 µl		

5.	Temperatura/ Termometri s direktnim očitanjem <i>Temperature/ Direct reading thermometers</i>	-40 °C do/to 155 °C	0,1 °C	Vlastiti postupak <i>In-house procedure</i> 17025_V1_25_118 izdanje/issue 1 datum/date 2025-01-10	Usporedba s platinskim otporničkim termometrom u suhom blok kalibratoru (dubina uranjanja 100 mm) ili u termostatiranoj komori. <i>Comparison with platinum resistance thermometer in dry block calibrator (immersion depth 100 mm) or in thermostated chamber.</i>
----	---	---------------------	--------	---	---

Umjeravanje na terenu/ On-site calibration					
Br. No.	Mjerna veličina/ Mjerilo Measurand/ Calibration item	Mjerno područje Measurand range	Proširena mjerna nesigurnost Expanded measurement uncertainty	Metoda umjeravanja Calibration method	Napomene Remarks
1.	Masa/ Elektroničke neautomatske vage Mass/ Non-automatic weighing instruments	$m \leq 10 \text{ g}$	0,013 mg	Vlastiti postupak In-house procedure 17025_V7_19_31, izdanje/datum edition/date 07/2019-11-08 EURAMET cg-18 v. 4.0, 2015-11	
		$10 \text{ g} < m \leq 100 \text{ g}$	0,10 mg		
		$100 \text{ g} < m \leq 200 \text{ g}$	0,17 mg		
		$200 \text{ g} < m \leq 500 \text{ g}$	0,39 mg		
		$500 \text{ g} < m \leq 1 \text{ kg}$	0,88 mg		
		$1 \text{ kg} < m \leq 2 \text{ kg}$	1,6 mg		
		$2 \text{ kg} < m \leq 5 \text{ kg}$	6,1 mg		
		$5 \text{ kg} < m \leq 10 \text{ kg}$	7,2 mg		
		$10 \text{ kg} < m \leq 20 \text{ kg}$	19 mg		
		$20 \text{ kg} < m \leq 40 \text{ kg}$	81 mg		
		$40 \text{ kg} < m \leq 220 \text{ kg}$	350 mg		
		$220 \text{ kg} < m \leq 3000 \text{ kg}$	45 g		

Umjeravanje na terenu/ <i>On-site calibration</i>					
Br. No.	Mjerna veličina/ Mjerilo <i>Measurand/ Calibration item</i>	Mjerno područje <i>Measurand range</i>	Proširena mjerna nesigurnost <i>Expanded measurement uncertainty</i>	Metoda umjeravanja <i>Calibration method</i>	Napomene <i>Remarks</i>
2.	Temperatura/ Termometri s direktnim očitanjem <i>Temperature/ Direct reading thermometers</i>	-40 °C do/to 155 °C	0,1 °C	Vlastiti postupak <i>In-house procedure</i> 17025_V1_25_118 izdanje/issue 1 datum/date 2025-01-10	Usporedba s platinskim otporničkim osjetnikom temperature u suhom blok kalibratoru (dubina uranjanja 100 mm). <i>Comparison with platinum resistance thermometer in dry block calibrator (immersion depth 100 mm).</i>

* Proširena mjerna nesigurnost je izračunata u skladu s postupkom opisanom u EA 4/02 M, s razinom povjerenja 95 %, što uobičajeno i ako nije drugačije navedeno, znači množenje standardne nesigurnosti faktorom pokrivanja $k=2$. Laboratorij ne smije u potvrdama o umjeravanju koje izdaje u statusu akreditiranog laboratorija izražavati manju mjernu nesigurnost od objavljene CMC.
Expanded measurement uncertainty has been calculated according to the procedures given in EA 4/02 M, at a coverage probability of 95 %, which usually and if not stated otherwise, means by multiplying standard uncertainty by a coverage factor of $k = 2$. An accredited laboratory is not permitted to quote an uncertainty that is smaller than the published CMC in certificates issued under its accreditation.