



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005
& ANSI/NCSL Z540-1-1994

ICL CALIBRATION LABORATORIES, INC.
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CALIBRATION

Valid To: November 30, 2012

Certificate Number: 0526.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following calibrations¹:

I. Fluid Quantities

Parameter	Range	CMC ² (±)	Comments
Hydrometry –	Specific Gravity (Relative Density)		
Specific Gravity (Relative Density) Hydrometers and Equivalent Values in Other Hydrometer Scales: Density (kg/M ³ , kg/L), Baume, Brix, Proof	(>0.631 to 0.700) SG	0.00016 SG	ASTM Method E126
	(>0.700 to 0.900) SG	0.00017 SG	
	(>0.900 to 1.100) SG	0.00018 SG	
	(>1.100 to 1.200) SG	0.00019 SG	
	(>1.200 to 1.300) SG	0.00021 SG	
	(>1.300 to 1.400) SG	0.00022 SG	
	(>1.400 to 1.600) SG	0.00036 SG	
	(>1.600 to 1.800) SG	0.00037 SG	
API Hydrometers and Thermohydrometers	API Scale for Petroleum Products		ASTM Method E126
	(-5° to <0°) API	0.027 API	
	(0° to <5°) API	0.023 API	
	(5° to <10°) API	0.025 API	
	(10° to <15°) API	0.025 API	
	(15° to <20°) API	0.027 API	
	(20° to <25°) API	0.028 API	
	(25° to <30°) API	0.030 API	
	(30° to <35°) API	0.032 API	
	(35° to <40°) API	0.033 API	
	(40° to <45°) API	0.035 API	
(45° to <50°) API	0.037 API		

Parameter	Range	CMC ² (±)	Comments
Hydrometry – (cont'd)	API Scale for Petroleum Products		
API Hydrometers and Thermohydrometers	(50° to <55°) API (55° to <60°) API (60° to <65°) API (65° to <70°) API (70° to <75°) API (75° to <80°) API (80° to <85°) API (85° to <90°) API (90° to <92.5°) API 92.5° API	0.039 API 0.041 API 0.044 API 0.047 API 0.049 API 0.051 API 0.053 API 0.056 API 0.057 API 0.057 API	ASTM Method E126

II. Mechanical

Parameter	Range	CMC ² (±)	Comments
Mass – Including Laboratory Weights and Masses: ASTM Classes 1, 2, 3, 4, 5, 6 & 7 NIST (NBS) Class S, S1, & F OIML Classes E2, F1, F2, M1, M2 and M3	(1 to 300) mg 500 mg 1 g 2 g 3 g 5 g 10 g 20 g 30 g 50 g 100 g 200 g 300 g 500 g 1 kg 2 kg 3 kg 5 kg	2.5 µg 2.7 µg 3.0 µg 4.6 µg 3.5 µg 4.3 µg 12 µg 14 µg 17 µg 25 µg 29 µg 72 µg 0.12 mg 0.16 mg 0.20 mg 0.93 mg 0.77 mg 1.2 mg	Methods: NIST weighing designs, standard operating procedures Note: Laboratory is equipped for metric weights ONLY
Volume – Volumetric Glassware	(0.1 to 10) mL (>10 to 25) mL (>25 to 50) mL (>50 to 100) mL (>100 to 250) mL (>250 to 500) mL (>500 to 1000) mL (>1000 to 2500) mL	0.0062 mL 0.0067 mL 0.0084 mL 0.013 mL 0.035 mL 0.062 mL 0.18 mL 0.32 mL	ICL Procedure 03 (based upon ASTM E542 and NIST Weights & Measures SOP-14)

Peter Abney

III. Thermodynamics

Parameter	Range	CMC ² (±)	Comments
Temperature – Liquid in Glass Thermometers, Digital Thermometers, PRTs, RTDs, Thermistors, Thermocouples, Temperature Recorders and Loggers	Using PRTs Approx. -196 °C -80 °C to < 0 °C 0 °C 0.01 °C >0 °C to 100 °C >100 °C to 200 °C >200 °C to 300 °C >300 °C to 420 °C >420 °C to 500 °C >500 °C to 650 °C >650 °C to 700 °C Using S-Type TC >650 °C to 1000 °C	0.0035 °C (3.5 mK) 0.0075 °C (7.5 mK) 0.0034 °C (3.4 mK) 0.0019 °C (1.9 mK) 0.0071 °C (7.1 mK) 0.0092 °C (9.2 mK) 0.011 °C (11 mK) 0.015 °C (15 mK) 0.035 °C (35 mK) 0.067 °C (67 mK) 0.26 °C (260 mK) 0.86 °C (0.86 K)	Liquid nitrogen Ice point reference Triple point cell
Humidity – Humidity Indicating and Recording Devices	(10 to 80) % RH (>80 to <90) % RH (90 to 95) % RH	0.66 % RH 0.92 % RH 1.1 % RH	Thunder Scientific 2500

¹ This laboratory offers commercial calibration service.

² Calibration and Measurement Capability (CMC) is the smallest uncertainty of measurement that a laboratory can achieve within its scope of accreditation when performing more or less routine calibrations of nearly ideal measurement standards or nearly ideal measuring equipment. Calibration and Measurement Capabilities represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The actual measurement uncertainty of a specific calibration performed by the laboratory may be greater than the CMC due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.





World Class Accreditation

The American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

ICL CALIBRATION LABORATORIES, INC.

Stuart, FL

for technical competence in the field of

Calibration

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General Requirements for the Competence of Testing and Calibration Laboratories*. This laboratory also meets the requirements of ANSI/NCSL Z540-1-1994 and any additional program requirements in the field of calibration. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 13th day of December 2010.





Peter Meyer

President & CEO
For the Accreditation Council
Certificate Number 526.01
Valid to November 30, 2012

For the calibrations to which this accreditation applies, please refer to the laboratory's Calibration Scope of Accreditation.