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 18 June 2005*).

Presented this 4th day of January 2007.

President
For the Accreditation Council
Certificate Number 526.01
Valid to November 30, 2008

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

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

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CALIBRATION

Valid To: November 30, 2008 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 calibrations[1]:

I. Thermodynamics

Parameter	Range	Best Uncertainty[2] (±)	Comments
Temperature –	Approx. -196 °C	6.2 mK	Liquid nitrogen
	-80 °C	8.9 mK	
	-40 °C	8.9 mK	
	0 °C	3.9 mK	Ice point reference
	0.01 °C	1.9 mK	Triple point cell
Measuring Equipment	100 °C	8.5 mK	Liquid in glass thermometers per ASTM E77, PRTs, thermistors, thermocouples
	200 °C	9.4 mK	
	300 °C	9.8 mK	
	420 °C	14 mK	
	500 °C	0.034 °C	
	700 °C	0.26 °C	
	1000 °C	0.86 °C	
Surface Thermometers	35 °C to 100 °C	0.51 °C	Hart 3125 surface calibrator
	>100 °C to 200 °C	0.79 °C	
	>200 °C to 300 °C	1.1 °C	
	>300 °C to 400 °C	1.7 °C	
Humidity	10 % to 95 %	0.7 %	Thunder scientific 2500

II. Mechanical

Parameter	Range	Best Uncertainty[2] (±)	Comments
Mass	(1 to 500) mg 500 mg to 1 g 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	0.0028 mg 0.0032 mg 0.0052 mg 0.0055 mg 0.007 mg 0.01 mg 0.013 mg 0.015 mg 0.023 mg 0.025 mg 0.035 mg 0.083 mg 0.2 mg 0.25 mg 0.4 mg 1.7 mg 2.5 mg 4 mg	ASTM Class 1 weights and equivalents in other classifications
Volume	Up to 250 mL (>250 to 600) mL 1000 mL	0.005 mL 0.043 mL 0.18 mL	By gravimetry; measured with distilled water, ASTM E542

III. Fluid Quantities

Parameter	Range	Best Uncertainty[2] (±)	Comments
Hydrometry –			
Specific Gravity	(1.100 to 2.000) SG 1.100 SG 1.000 SG 0.900 SG 0.800 SG 0.700 SG 0.650 SG	0.00075 SG 0.00018 SG 0.00017 SG 0.00016 SG 0.00016 SG 0.00015 SG 0.00015 SG	Specific gravity (relative density) hydrometers and equivalent values in other hydrometer scales

Parameter	Range	Best Uncertainty[2] (±)	Comments
Hydrometry (cont) –			
API	-5° API	0.020 API	API hydrometers
	0° API	0.021 API	
	5° API	0.023 API	
	10° API	0.024 API	
	15° API	0.026 API	
	20° API	0.026 API	
	25° API	0.028 API	
	30° API	0.030 API	
	35° API	0.031 API	
	40° API	0.033 API	
	45° API	0.035 API	
	50° API	0.037 API	
	55° API	0.039 API	
	60° API	0.040 API	
	65° API	0.042 API	
	70° API	0.044 API	
	75° API	0.046 API	
	80° API	0.048 API	
	85° API	0.050 API	
	90° API	0.052 API	
	92.5° API	0.054 API	

[1]This laboratory offers commercial calibration service.

[2] "Best Uncertainty" 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 of nearly ideal measuring equipment. Best uncertainties represent expanded uncertainties expressed at approximately the 95 % level of confidence, usually using a coverage factor of $k = 2$. The best uncertainty of a specific calibration performed by the laboratory may be greater than the best uncertainty due to the behavior of the customer's device and to influences from the circumstances of the specific calibration.