



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

Perry Johnson Laboratory Accreditation, Inc. has assessed the Laboratory of:

EPSICAL, S.A de C.V.

***Av. Las Puentes No. 207, Col. Las Puentes 2do. Sector
San Nicolás de los Garza, Nuevo León, México C.P. 66460***

*(Hereinafter called the Organization) and hereby declares that Organization is accredited
in accordance with the recognized International Standard:*

ISO/IEC 17025:2017

This accreditation demonstrates technical competence for a defined scope and the
operation of a laboratory quality management system
(as outlined by the joint ISO-ILAC-IAF Communiqué dated April 2017):

***Optical, Electrical, Chemical, Mass, Force and Weighing Devices, Dimensional,
Thermodynamic, Mechanical and Time and Frequency Calibration
(As detailed in the supplement)***

Accreditation claims for such testing and/or calibration services shall only be made from addresses referenced within this certificate. This Accreditation is granted subject to the system rules governing the Accreditation referred to above, and the Organization hereby covenants with the Accreditation body's duty to observe and comply with the said rules.

For PJLA:

Tracy Szerszen
President

Initial Accreditation Date:

March 30, 2008

Issue Date:

January 05, 2025

Expiration Date:

January 31, 2027

Accreditation No.:

60097

Certificate No.:

L25-12

Perry Johnson Laboratory
Accreditation, Inc. (PJLA)
755 W. Big Beaver, Suite 1325
Troy, Michigan 48084

*The validity of this certificate is maintained through ongoing assessments based
on a continuous accreditation cycle. The validity of this certificate should be
confirmed through the PJLA website: www.pjlabs.com*



Certificate of Accreditation: Supplement

EPSICAL, S.A de C.V

Av. Las Puentes No. 207, Col. Las Puentes 2do, Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: Orlando Reyes Hernandez Phone: 818-057-5931

Accreditation is granted to the facility to perform the following calibrations:

Optical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Reflectance Spectrometers Reflectance Color Spectrometers ^{FO}	360 nm to 740 nm 10 % to 90 % reflectance (ρ)	0.5% reflectance (ρ)	Reflectance Standards, Color Tiles	NPL Measurement Good Practice Guide No.95 and No. 96
Reflectance Color Standards ^F	Color Interval: CIE L*: 35 to 84 CIE a*: -28 to 40 CIE b*: -27 to 77	CIE L*: 0.42 CIE a*: 0.35 CIE b*: 0.71	Konica Minolta Spectrophotometer Model CM2500d	
Transmittance Spectrophotometers ^{FO}	τ : 1 % T to 90 % T Spectral Bandwidth (2 nm) λ : 361.2 nm to 879.2 nm Spectral Bandwidth (2 nm)	(0.24 τ + 0.08) % T 3 nm	HACH Spectrophotometer Model DR2700	CENAM Technical Guide
Neutral Density Filters ^F	τ : 1 % T to 90 % T (440 nm to 750 nm)	(0.24 τ + 0.075) % T		
Band Pass Filters ^F	λ : 361.2 nm to 879.2 nm Spectral Bandwidth (5 nm)	3 nm		
Gloss Meters ^{FO}	Angle 20°: 92 Gloss Units Angle 60°: 95 Gloss Units Angle 85°: 99 Gloss Units	0.25 Gloss Units 0.25 Gloss Units 0.25 Gloss Units	High Gloss Glass Gloss Meter Tri-angle 4-PT-OB-B3 4-PT-OB-PB	NPL Measurement Good Practice Guide No.94
Hi-Gloss Tiles ^F	Angle 20°: 92 Gloss Units Angle 60°: 95 Gloss Units Angle 85°: 99 Gloss Units	0.25 Gloss Units 0.25 Gloss Units 0.25 Gloss Units		
Equipment for Visual Appraisal of the Colors and Color Difference ^O	900 lux to 11 000 lux Light Chambers	(17.16 + 3.35 x 10 ⁻⁴ L) lux	Light Meter 4-PT-OI-CA	ASTM D-1729
Light Meters ^F	1 lux to 20 000 lux	(0.658 + 4.19 x 10 ⁻⁴ L) lux	Quartz Tungsten Halogen Lamps Light Meter 4-PT-OI-LX	NIST Special Publication 250-95
Refraction Index ^F (Refractometer)	5 °Brix to 80 °Brix	(0.04 + 0.008R) °Brix	Certified Refractometer Reference Refraction Solutions (Brix)	OIML 108 Refractometers for the Measurement of the Sugar Content of Fruit Juices



Certificate of Accreditation: Supplement

EPSICAL, S.A de C.V.

Av. Las Puentes No. 207, Col. Las Puentes 2do, Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: Orlando Reyes Hernandez Phone: 818-057-5931

Accreditation is granted to the facility to perform the following calibrations:

Electrical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type J ^{FO}	-200 °C to 1 100 °C	0.35 °C	Cypon Multifunction Process Calibrator Electrical Simulation of Thermocouple Output 4-PT-ET-TD	Euramet-cg-11 ASTM E230/ E230M
Temperature Calibration, Indication and Control Equipment used with Thermocouple Type K ^{FO}	-200 °C to 1 100 °C	0.35 °C		
Temperature Calibration. Indication and Control Equipment used with RTD Pt 100 ^F (27.08 Ω to 360.55 Ω)	-100 °C to 800 °C	0.02 °C	Cypon Multifunction Process Calibrator Electrical Simulation of RTD Output 4-PT-ET-TD	Euramet_cg-11 ASTME1137/ E1137M

Chemical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Kinematic Viscometers ^{FO} Flow Cups, Glass Capillary Kinematic Viscometers Note: All ranges are at 25°C	68.4 mm ² /s	0.5 % of reading	Cannon Certified Liquids Standards 4-PT-QV-CPA 4-PT-QV-TBCNN	ASTM D1200 ASTM D4212 ASTM D446
	160.4 mm ² /s	0.3 % of reading		
	477 mm ² /s	0.1 % of reading		
Dynamic Viscometers - Rotational Viscometers ^{FO} Note: All ranges are at 25°C	500 Pa·s	1.1 % of reading	Brookfield and Cannon Viscosity Standards Calibration 4-PT-QV-ROCP	ASTM E-2975
	1 000 Pa·s	1.1 % of reading		
	5 000 Pa·s	1.1 % of reading		
	12 500 Pa·s	1.1 % of reading		
Potential of Hydrogen - pH Meters ^{FO}	4 pH	0.34 % of reading	pH 4 Buffer pH 7 Buffer pH 10 Buffer 4-PT-QP-PH	ASTM D-1293
	7 pH	0.24 % of reading		
	10 pH	0.19 % of reading		



Certificate of Accreditation: Supplement

EPSICAL, S.A de C.V.

Av. Las Puentes No. 207, Col. Las Puentes 2do, Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: Orlando Reyes Hernandez Phone: 818-057-5931

Accreditation is granted to the facility to perform the following calibrations:

Chemical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Conductivity Meters ^{FO}	84 μ S/cm	1.1 μ S/cm	Control, Thermo Electron, HANNA Ricca Chemical Companies Standard Solutions 4-PT-QC-CO	ASTM D-1125
	1 423 μ S/cm	5.5 μ S/cm		
	12 880 μ S/cm	60 μ S/cm		
Turbidity Meters ^{FO}	20 NTU	2 NTU	Formazin Standards 4-PT-QT-TB	ASTM D 7315
	800 NTU	49 NTU		
	1 000 NTU	51 NTU		
	4 000 NTU	85 NTU		

Mass, Force and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Weight Class F1, F2, M1, M2, M3 ^F	1 g	0.03 mg	ABBA Substitution Method Analytical Scale Mettler Toledo (Res.= 0.01 mg) OIML E2 Weights	4-RI-MM-MS1GR OIML R 111
	2 g	0.03 mg		
	5 g	0.05 mg		
	10 g	0.05 mg		
	20 g	0.05 mg		
	50 g	0.07 mg		
	100 g	0.09 mg		
Weight Class F2, M1, M2, M3 ^F	200 g	0.9 mg	ABBA Substitution Method. Weight Class F1 OIML Analytical Scale Sartorius (Res.= 1 mg) 4-RI-MM-MS1GR	OIML R 111
	500 g	1.6 mg		
	1 000 g	2.5 mg		



Certificate of Accreditation: Supplement

EPSICAL, S.A de C.V.

Av. Las Puentes No. 207, Col. Las Puentes 2do, Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: Orlando Reyes Hernandez Phone: 818-057-5931

Accreditation is granted to the facility to perform the following calibrations:

Mass, Force and Weighing Devices

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Weight Class F2, M1, M2, M3 ^F	2 000 g	5 mg	ABBA Substitution Method Weight F1 OIML Scale Mettler (Res.= 10 mg) 4-RI-MM-MS1GR	OIML R 111
	5 000 g	5 mg		
Weight Class M2, M3 ^F	5 000 g	0.23 g	ABBA Substitution Method. OIML Weights M1 Scale Sartorius (Res.= 0.1 g) 4-RI-MM-MS1GR	
	10 000 g	0.3 g		
	20 000 g	0.4 g		
Scales and Balances ^O	1 g to 200 g	$(3.14 \times 10^{-5} + 847 \times 10^{-6} \text{Wt}) \text{ mg}$	OIML Class E2, F1 and M1 Weights 4-PT-MFW-B OIML R 76-1	SIM MWG7 / cg-01/v.00
	1 g to 6 000 g	$(3.14 \times 10^{-5} + 1.67 \times 10^{-6} \text{Wt}) \text{ g}$		
	0.1 kg to 100 kg	$(5.1 \times 10^{-5} + 165 \times 10^{-4} \text{Wt}) \text{ g}$		

Thermodynamic

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Temperature Calibration Liquid in Glass Thermometer ^F	5 °C to 60 °C	0.2 °C	Circulation Bath 4-PT-TT-TVIP 4-PT-TT-TVIT	NIST SP 250-23 ASTM E1-14
Temperature Measurement Digital Thermometer ^F	40 °C to 300 °C	0.9 °C	Reed BX-150 Dry Block 4-PT-TT-TD	ASTM E644-11 ASTM E2623-14
Temperature measurement Thermocouple Type K ^F	40 °C to 300 °C	0.9 °C	Reed BX-150 Dry Block Temperature Calibrator 4-PT-ET-TP	Euramet_cg-08/v.01 ASTM E230/E230M
Temperature Measurement Thermocouple Type J ^F	40 °C to 300 °C	0.9 °C		Euramet_cg-08/v.01 ASTM E230/E230M
Temperature Controllers with Thermocouple Type K ^{FO}	-30 °C to 1 200 °C	$(0.24 + 11 \times 10^{-4} \text{T}) \text{ °C}$	Digital Thermometer 4-PT-TT-CO	Euramet_cg-11



Certificate of Accreditation: Supplement

EPSICAL, S.A de C.V.

Av. Las Puentes No. 207, Col. Las Puentes 2do, Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: Orlando Reyes Hernandez Phone: 818-057-5931

Accreditation is granted to the facility to perform the following calibrations:

Thermodynamic

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Temperature Measurement RTD Pt 1 000 (1 155.4 Ω to 2 120.5 Ω) ^F	40 °C to 300 °C	0.9 °C	Reed BX-150 Dry Block Temperature Calibrator 4-PT-ET-TP	ASTM E644
Thermometer of Mercury in Glass ^F	40 °C to 300 °C	0.9 °C	Heating Circulating Bath Digital Thermometer 4-PT-TT-TVIP 4-PT-TT-TVIT	NIST SP 250-23 ASTM E1-14
Thermohygrometer ^F Humidity	30 % RH to 85 % RH	3 % RH	Certified Hygrometer (in a Climatic Chamber)	CEM TH-007
Thermohydrometer ^F Temperature	5 °C to 60 °C	1 °C	Incubator	CEM TH-007

Dimensional

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Thickness Gages ^{FO}	23 μ m to 1 453 μ m	0.3 μ m	Certified Shim Set 4-PT-DM-ME	ASTM E-376

Mechanical

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Density and Specific Gravity Calibration of Hydrometers ^F	0.5 g/cm ³ to 2.0 g/cm ³	0.001 1 g/cm ³	Distilled Water Analytical Scale Density System for analytical scale Immersion Balastre	SIM MWG7 cg-03/v.00 INIMET ISSN: 0138-8576



Certificate of Accreditation: Supplement

EPSICAL, S.A de C.V.

Av. Las Puentes No. 207, Col. Las Puentes 2do, Sector
San Nicolás de los Garza, Nuevo León, México. C.P. 66460
Contact Name: Orlando Reyes Hernandez Phone: 818-057-5931

Accreditation is granted to the facility to perform the following calibrations:

Time and Frequency

MEASURED INSTRUMENT, QUANTITY OR GAUGE	RANGE (AND SPECIFICATION WHERE APPROPRIATE)	CALIBRATION AND MEASUREMENT CAPABILITY EXPRESSED AS AN UNCERTAINTY ($\pm$)	CALIBRATION EQUIPMENT AND REFERENCE STANDARDS USED	CALIBRATION MEASUREMENT METHOD OR PROCEDURES USED
Stopwatch ^F	24 hr	0.087 s	Stopwatch Photo Totalize Method 4-PT-TFT-CR	NIST SP 960-12

1. The CMC (Calibration and Measurement Capability) stated for calibrations included on this scope of accreditation represents the smallest measurement uncertainty attainable by the laboratory when performing a more or less routine calibration of a nearly ideal device under nearly ideal conditions. It is typically expressed at a confidence level of 95 % using a coverage factor k (usually equal to 2). The actual measurement uncertainty associated with a specific calibration performed by the laboratory will typically be larger than the CMC for the same calibration since capability and performance of the device being calibrated and the conditions related to the calibration may reasonably be expected to deviate from ideal to some degree.
2. The laboratories range of calibration capability for all disciplines for which they are accredited is the interval from the smallest calibrated standard to the largest calibrated standard used in performing the calibration. The low end of this range must be an attainable value for which the laboratory has or has access to the standard referenced. Verification of an indicated value of zero in the absence of a standard is common practice in the procedure for many calibrations but by its definition it does not constitute calibration of zero capacity.
3. The presence of a superscript F means that the laboratory performs calibration of the indicated parameter at its fixed location.
4. The presence of a superscript O means that the laboratory performs calibration of the indicated parameter onsite at customer locations.
5. Measurement uncertainties obtained for calibrations performed at customer sites can be expected to be larger than the measurement uncertainties obtained at the laboratories fixed location for similar calibrations. This is due to the effects of transportation of the standards and equipment and upon environmental conditions at the customer site which are typically not controlled as closely as at the laboratories fixed location.
6. The term L represents length in inches or millimeters as appropriate to the uncertainty statement.
7. The term T represents temperature in °C or °F as appropriate to the uncertainty statement.
8. The term R represent refractive index in Brix as appropriate to the uncertainty statement.
9. The term Wt represents weight in pounds or grams (including SI multiple and submultiple units) appropriate to the uncertainty statement.
10. The term τ represent transmittance index (scale 0 to 1) as appropriate to the uncertainty statement