

PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Centro de Ingeniería y Desarrollo Industrial (CIDESI)

Carretera Estatal 200 Querétaro - Tequisquiapan, KM 23, #22547, Parque Aeroespacial de Querétaro; localidad Galeras, Querétaro, México. C.P. 76270

(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):

Mechanical and Chemical Testing (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

Perry Johnson Laboratory Accreditation, Inc. (PJLA) 755 W. Big Beaver, Suite 1325 Troy, Michigan 48084 Initial Accreditation Date:Issue Date:Expiration Date:September 07, 2019November 19, 2021January 31, 2024Accreditation No.:Certificate No.:101587L21-701

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: <u>www.pjlabs.com</u>



Certificate of Accreditation: Supplement

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Carretera Estatal 200 Querétaro - Tequisquiapan, KM 23, #22547, Parque Aeroespacial de Querétaro; localidad Galeras, Querétaro, México. C.P.76270 Contact Name: Ma. Esthela Gonzalez Phone: 442-672-7501

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

FIELD OF TEST	ITEMS, MATERIALS OR PRODUCTS TESTED	SPECIFIC TESTS OR PROPERTIES MEASURED	SPECIFICATION, STANDARD METHOD OR TECHNIQUE USED	RANGE (WHERE APPROPRIATE) AND DETECTION LIMIT
Mechanical ^F	Adhesives for	Lap Shear Joint	ASTM D1002	0.5 kN to 90 kN
	Bonding Materials	Adhesive Strength		Precision: 1 N
	Metals, Adhesives,	Thickness	PR-TM-FQ-009	30 µm to 1 mm
	Polymers and		(Internal Procedure)	Precision: 1 µm
	Composites		Zeiss Optical	
			Stereoscope	
	Solids and	Porosities Control	PR-TM-FQ-009	30 µm to 1 mm
	Adhesives		(Internal Procedure)	Precision: 1 µm
			Zeiss Optical	
			Stereoscope	
	Metals and Alloys	Force Controlled Axial	ASTM E466	1 kN to 90 kN
		Fatigue Testing		
		Strain Controlled	ASTM E606	1 kN to 90 kN
		Fatigue Testing	Force Machine	+/- 0.1 mm/mm
			Extensometer	Room Temperature to:
				900 °C
	Polymers	Glass Transition	ASTM E1640	25 °C to 300 °C
		Temperature (Tg) by		Precision: 0.1 °C
	Polymer Matrix	Dynamic Mechanical	ASTM D7028	25 °C to 300 °C
	Composites	Analysis		Precision: 0.1 °C
	Polymer Matrix	Determination of Peel	ISO 4578	5 N to 90 kN
	Composites Metal ^{FO}	Resistance of High-	MTS Universal	Precision: 1 N
		Strength Adhesive	Equipment	
		Bonds – Floating –	Micrometer Grips	
		Roller Method	Fixtures Vernier	
	Metal ^{FO}	Tension Strength	ASTME8	1 kN to 90 kN
			MTS Universal	Precision: 1 N
			Equipment	
			Micrometer Vernier	
			Extensometer	
		Elevated Temperature	ASTM E21	1 kN to 90 kN
		Tension Tests of	MTS Universal	Precision: 1 N
		Metallic Material	Equipment	
			Micrometer Vernier	
			Extensometer	



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Chemical ^F	Solid and Liquids	Fourier Transform	ASTM E1252	545 cm ⁻¹ to 3 082 cm ⁻¹
	Organic Materials	Infrared Spectroscopy (FTIR)		Precision: 0.01 cm ⁻¹
	Organic Materials	Determination of the	ASTM E1356	-90 °C to 400 °C
		Glass Transition	ISO 11357-2	(with Aluminum Pans)
		Temperature (Tg) by		Precision: 0.1 °C / 0.1 J
		Differential Scanning		
		Calorimetry		
	Organic and	Temperatures and	ASTM E793	-90 °C to 400 °C
	Inorganic Materials	Enthalpies of Fusion	ISO 11357-3	(with Aluminum Pans)
		and Crystallization	100 11055 5	Precision: 0.1 °C / 0.1 J
		Determination of	ISO 11357-5	-90 °C to 400 °C
		Characteristic Reaction-		(with Aluminum Pans)
		Times Enthelpy of		Precision: 0.1 °C / 0.1 J
		Panetion and Degree of		
		Conversion		
		(Scanning Method)		
	Composite	Constituent Content	ASTM D3171	Up to 110 g
	Materials		Test Method I	Precision: 0.000 1 g
			Procedure G	
			Analytical Balance	
			Muffle Dissector	
		Constituent Content-	ASTM D3171	Up to 110 g
		Acid Digestion	Test Method I	Precision: 0.000 1 g
			Procedure B	
			Analytical Balance	
			Dissector Thermometer	
	Polymer Matrix	Density	ASTM D792	Up to 110 g
	and High Modulus		Analytical Balance	Precision: 0.000 1 g
	Fiber Composites		Thermometer Dissector	
	Aerospace Interior	Flame Resistance,	FAR 25 Appendix F Part	15 Seconds Horizontal
	waterials	Horizontal Test	1(0) 5	Bunsen Burner
				Disto 240 S Precision: 0.1 s
				0 mm to 254 mm
				Precision: 0.5 mm



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Chemical ^{FO}	Materials used in	Burn Resistance	FMVSS 302	15 Seconds Horizontal
	the Occupant	(Burn Rate)	Flammability Chamber	Bunsen Burner
	Compartments of		with Horizontal Support	Precision: 0.1 s
	Motor Vehicles		Chronometer, Ruler,	0 mm to 280 mm
			Flame Height Gage	Precision: 0.5 mm
			Thermo-Hygrometer	

- 1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location. Example: Outside Micrometer^F would mean that the laboratory performs this testing at its fixed location.
- 2. The presence of a superscript FO means that the laboratory performs testing of the indicated parameter both at its fixed location and onsite at customer locations. Example: Outside Micrometer^{FO} would mean that the laboratory performs this testing at its fixed location and onsite at customer locations.