



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Midwest Testing Laboratories, Inc.
1072 Wheaton Avenue, Troy, MI 48083

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

ISO/IEC 17025:2005

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):

Chemical and Mechanical 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/Operations Manager

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

Initial Accreditation Date:

September 15, 2018

Issue Date:

November 17, 2018

Expiration Date:

February 28, 2021

Accreditation No.:

85563

Certificate No.:

L18-538

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.pjilabs.com



Certificate of Accreditation: Supplement

Midwest Testing Laboratories, Inc.

1072 Wheaton Avenue, Troy, MI 48083

Contact Name: Cherie Ulatowski Phone: 248-689-9262

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
Chemical ^F	Metals	Chemical Composition Analysis (C, Mn, P, S, Si, Cr, Ni, Mo, V)	ASTM E415	0.000 3 % to 100 %
Mechanical ^F	Fall Protection Devices, Materials and Components, Full Body Harnesses, Lanyards, SRL's, Rope Grabs, Fall Arresters, Safety Belts, Personal Climbing Equipment, Textile Webbing	Force: Dynamic Performance, Dynamic Strength, Static Strength, Activation Force, Arrest Force, Arrest Distance, Elongation, Breaking Strength and Elongation	ANSI/ASSE Z359.1 ANSI/ASSE Z359.12 ANSI/ASSE Z359.13 ANSI/ASSE Z359.14 ANSI/ASSE Z359.18 ANSI/ASSE A10.32 CAN/CSA Z259.12 CSA Z259.2.1 CSA Z59.10-M90 CSA Z259.11 ANSI A14.3 OSHA 1926.502 (D) OSHA 1910.66 App C OSHA 1910.27 OSHA 1926.502 ASTM F887 (all but 15.3.1, 22)	0 lbf to 20 000 lbf
	Metals	Ductility/Bend/Flaring	ASTM E190 Customer Specification	0 lbf to 120 000 lbf
		Loads: Proof Load External/Internal, Tension Strength, Compression Strength, Tensile Strain-Hardening Exponents (n-Values), Plastic Strain Ratio r, Axial/Wedge Tension Strength, Hydrogen Embrittlement	ASTM A370 ASTM F606 ASTM F606M SAE J429 SAE J1216 SAE J995 ASTM E8 ASTM E9 ASTM E646 ASTM E517 SAE J82 FEDSTD 191A Test Method 4109 USCAR 5 & 7	
	Metals, Coatings	Hardness: Rockwell Hardness (HRBW, HRC, HR15N, HR30N, HR30T) Brinell Hardness, Vickers and Knoop, Micro-indentation Hardness Pencil Hardness	ASTM E18 ASTM E140 SAE J429 ASTM E10 SAE J417 ASTM E384 ASTM D3363 FLTM BI 151-01	62.5 kg to 3 000 Kg 107 HV to 940 HV 22 HRC to 63 HRC 46 HRBW to 92 HRBW 74 HR15N to 90 HR15N 6B to 6H



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Mechanical ^F	Metals, Coatings	Adhesion: Plating Adhesion, Tape Adhesion, Peel Strength, Mandrel Bend, Chip Resistance, Mar Resistance	ASTM B571 GMW14829 SAE J207 FLTM BI 106-01 ASTM D3359 ASTM B533 ASTM B604 ASTM D3170 FLTM BI 157-05 GMW14700 (Method B,C) SAE J400 ASTM D2197 ASTM D5178 GMW 3097	0 lbf to 500 lbf. 0 psi to 100 psi
	Metals	Metallurgy: Case Depth / Decarburization / Depth, Discontinuities Surface External Threaded and Surface Internal Threaded, Grain Size, Inclusion Content, Macroetching, Microetching, Preparation of Metallographic Specimens, Fusion and Spot Weld Evaluation, Oxalic Intergranular Susceptibility, White Layer/microstructure, Failure Analysis	ASTM A574 ASTM A574M ASTM E1077 SAE J78 SAE J419 SAE J423 SAE J429 ASTM A490 ASTM F788 ASTM F788M ASTM F835 ASTM F835M ASTM F912 ASTM F912M ASTM F812 ASTM F812M SAE J122 SAE J123 SAE J1061 ASTM E112 ASTM E930 ASTM E1181 ASTM E45 (Method A, C) ASTM E340 ASTM D407 ASTM E3 Customer Specification ASTM A262 (Practice A) ASTM Metals Handbook	0 x to 1 000x



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Mechanical ^F	Metals, Coatings	Thickness: Plating Thickness, Coating Thickness, Dry Film Thickness, Simultaneous Thickness and Electrode Potential (STEP) Determination	ASTM B487 ASTM B764 ASTM B556 ASTM B604 ASTM B504 ISO 1463 ISO 2177 ASTM A90 ASTM B499 ASTM D7091-05 ISO 2178 ISO 2808	Up to 60 mils Up to 1 500 µm Up to 2.5 mm Up to 0.1 in
		Chemical Resistance: Etch Susceptibility of Stainless Steel, Gasoline Drip/Puddle Resistance, Oil Resistance, Cure (Solvent Rub)	GMW15284 GMW14333 GMW14671 GMW15891	
	Metals	Dye Penetrant	ASTM E165	
		Surface Roughness	JIS B0601 DIN/ISO 4287 DIN/ISO 4288 ANSI B46.1	0.1 µin to 3 200 µin
	Metals, Coatings	Corrosion: Corrodokote Corrosion Resistance, SWATT (Sea Water Acetic Acid Test), Filiform Corrosion, Salt Spray, Copper-Accelerated Acetic Acid-Salt Spray Fog (CASS), Corrosion (including Cyclic), Micro Porosity (Active Sites), Chloride Resistance (Russian Mud Resistance)	ASTM B380 Ford BQ-004-01 ASTM G85 (A1, A5) GMW 14193 PNAR 00682 ASTM D2803 ASTM D3322 FLTM BI 124-01 GMW15287 ASTM B117 GMW 3286 ISO 9227 FMVSS 209 Ford BI 103-01 Nissan NES M0140 Nissan NES M0007	



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Mechanical ^F	Metals, Coatings	Corrosion: Corrodokote Corrosion Resistance, SWATT (Sea Water Acetic Acid Test), Filiform Corrosion, Salt Spray, Copper-Accelerated Acetic Acid-Salt Spray Fog (CASS), Corrosion (including Cyclic), Micro Porosity (Active Sites), Chloride Resistance (Russian Mud Resistance)	ASTM B368 ASTM B604 GMW14458 ASTM B456 FLTM BI 123-03 GMW14124 GMW15288 GMW14668 GMW14872 HES D2021 NES M0007 (automated) SAE J1563 SAE J2334 Ford DVM-0042-SM Ford CETP 00.00-L-467 VW PV 1210 ASTM B456 ASTM B604 ASTM B995	0.1 µin to 3 200 µin
	Coatings	Flammability	FMVSS 302	20 % RH to 100 % RH (condensed and non-condensed)
		Humidity: Humidity, Water Immersion	ASTM D2247 ASTM D1735 GMW14729 DIN EN ISO 6270-2 FLTM BI 104-01	
	Temperature / Humidity: Temperature, Temperature Cycle, Temperature and Humidity Controlled Atmospheres	GMW14668 Chrysler PF.50014 DVM-0008-RG Chrysler-LP-463PB-22-01 DIN 50014	-70 °C to 1 200 °C 20 % RH to 100 % RH (condensed and non-condensed)	

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. Laboratory using customer supplied methods utilizing any combination of test equipment parameters listed above.