



# PERRY JOHNSON LABORATORY ACCREDITATION, INC.

## Certificate of Accreditation

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

***Tribologik Corporation***  
***1212 172<sup>nd</sup> Street, Hammond, IN 46324***

*(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):

***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

*Initial Accreditation Date:*

May 14, 2012

*Issue Date:*

December 05, 2023

*Expiration Date:*

January 31, 2026

*Accreditation No.:*

73353

*Certificate No.:*

L23-887-2

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.pjilabs.com](http://www.pjilabs.com)*



# Certificate of Accreditation: Supplement

## Tribologik Corporation

1212 172<sup>nd</sup> Street, Hammond, IN 46324

Contact Name: Moussa Zidoune Phone: 514-383-6330 Ext. 24

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 <sup>F</sup>	Lubricant, Cooling Liquids and Other Relevant Liquid	Additive Elements and Contamination	ASTM D5185 ASTM D6130 Inductively Coupled Plasma Atomic Emission	D.L. = 1 ppm	
		Chloride, Fluoride, Nitrite, Nitrate, Bromide, Phosphate, Sulfate, Formate, Glycolate, and Other Inions by Ion Chromatography	ASTM D5827 ASTM D3634	Chloride: D.L. = 2 mg/L Fluoride: D.L. = 5 mg/L Nitrite: D.L. = 4 mg/L Nitrate: D.L. = 7 mg/L Bromide: D.L. = 20 mg/L Phosphate: D.L. = 8 mg/L Sulfate: D.L. = 2 mg/L Formate: D.L. = 2 mg/L Glycolate: D.L. = 10 mg/L	
		pH	ASTM D1287	1 pH to 14 pH	
		Freeze Protection	ASTM D3321	-65 °C to 0 °C	
		Ethylene Glycol %	In-House Method	0 % to 100 %	
		Glycol Detection In Oil	ASTM D2982	Per Method	
		Total Base Number	ASTM D4739 ASTM D2896		
		Total Acid Number	ASTM D664 ASTM D974		
		Viscosity Index	ASTM D2270		
		Kinematic Viscosity	ASTM D445		
		Infra-Red	JOAP		FTIR: 0 in absorbency
		TDS	In-House SOP		N/A
		Conductivity	In-House SOP	N/A	
		% Water Crackle	In-House Method	Visual	
		Flash Point	ASTM D3828	Per Method	
		Fire Point	ASTM D92		
		Density	ASTM D1298 ASTM D4052	D.L. = 0.000 05 g/cm <sup>3</sup> T = 0.03 °C	
		Particle Count/Direct Reading Ferrography	NAS 1638 ISO 4406 In-House Method	Per Method	
		Cloud Point	ASTM D2500		
		Pour Point	ASTM D97		
Water by Karl Fisher	ASTM D6304 ASTM D4928				
Particle Quantifier	In-House Method				
Analytical Ferrography	In-House Method	Qualitative/Visual			
Vapor Pressure	ASTM D5191	2 psi to 15 psi			



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Chemical <sup>F</sup>	Lubricant, Cooling Liquids and Other Relevant Liquid	Sulfur by XRF	ASTM D4294 ASTM D5453 ISO 1302	1 mg/kg to 3 000 mg/kg 0.000 1 % to 0.35 %
		Lubricity	ASTM D6079	10 µm to 1 000 µm
	Lubricant, Cooling Liquids, and Fuel	Flash point Closed Cup	ASTM D93 ASTM D56 ASTM D6450	UL: 42.7 °C LL: 40.4 °C
		Distillation Petroleum	ASTM D86	Initial BP: UL: 160 °C LL: 154 °C
		Cetane Index	ASTM D4737 ASTM D976	UL: 45.7 °C LL: 42.68 °C
		Copper Corrosion	ASTM D130	Range 1a to 4c
		Research Octane Number	ASTM D2699	75 to 98
		Motor Octane Number	ASTM D2700	75 to 98
		Anti-Cknock Number	(R+M)/2	75 to 98
		Cetane Number	ASTM D613	38 to 69
		Water and Sediment	ASTM D2709	0 % to 90 %
		Oxygenate Content	ASTM D4815	D.L. = 0.000 01 %
		Vapor Liquid Ratio Temperature of Fuel	ASTM D5188	0 °C to 1 °C
		Carbon Residue	ASTM D4530	0.001 % to 10 %
		Oxidation Stability	ASTM D2274	0 hours to 72 hours
Lubricant and Grease	Remaining Useful Life (RUL) and Routine Useful Life Evaluation Routine (RULER <sup>TM</sup> ) Number by Linear Sweep Voltammetry (LSV)	ASTM D6971 ASTM D6810 ASTM D7590	Amine: UL: 68.5 % LL: 62.3 % Phenol: UL: 44.5 % LL: 40.11 %	
Cooling Liquids	Boiling Point (coolant)	ASTM D1120	UL: 112.4 °C LL: 106.12 °C	
Oil	Diesel Fuel in Used Engine Oils (Fuel %)	ASTM D3524/D7593	D.L. = 1 %	
	Corrosive Sulfur in Electrical Insulating Liquids	ASTM D1275	Non Corrosive / Corrosive	
	Varnish Potential	ASTM D7843	Up to 100	



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Chemical <sup>F</sup>	Fuel	Hydrocarbon	ASTM D1319	D.L. = 1 %
		Gum	ASTM D381	
		Anti-icing Additive Concentration	ASTM D5006	
		Aviation Particle Contamination	ASTM D5452	
		Emulsification	ASTM D3948	D.L. = 1 s
		Water Separation	ASTM D1401	
		Foaming Point	ASTM D892	
		Smoke Point	ASTM D1322	D.L. = 1 mm
		Napthalene	ASTM D1840	D.L. = 0.1 %
		Water Reaction Vessel	ASTM D1094	Aqueous layer: D.L.= 0.5 mL  Appearance: 1 to 3  Interface: 1 to 4
		Cold Filter Plugging Point	ASTM D6371	D.L. = 1 °C
		Freezing Point	ASTM D2386	
		Doctor Test	ASTM D4952	
	Electrical Conductivity	ASTM D2624		
Oil/Fuel	Heat of Combustion	ASTM D4809	D.L. = 1 °C	

1. The presence of a superscript F means that the laboratory performs testing of the indicated parameter at its fixed location.
2. This location is linked to 6980 Cote De Liesse, St. Liesse, QB, Montreal H4T1Y5, Montreal, QC H4T1Y5 due to a share quality management system.