



PERRY JOHNSON LABORATORY ACCREDITATION, INC.

Certificate of Accreditation

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

Aerospace Lubricants
1600 Georgesville Road, Columbus, OH 43228

(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:

August 11, 2014

Issue Date:

August 14, 2018

Expiration Date:

November 30, 2020

Accreditation No.:

73799

Certificate No.:

L18-378

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

Aerospace Lubricants

1600 Georgesville Road, Columbus, OH 43228
 Contact Name: Joe Schinner Phone: 614-878-3600

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	Chemical Properties: Oils & Greases	Infrared Spectrograph	ASTM E-1252	Perkin Elmer Spectrum FTIR Scan: 4 400 cm ⁻¹ to 450 cm ⁻¹
Mechanical ^F	Tribological Tests: Oils and Greases	Wear Preventive Characteristics (4 Ball Method)	ASTM D-2266	Wear Scar : 0.01 mm to 4 mm
			ASTM D-4172	
		Extreme Pressure Properties (a.k.a. Load Wear Index, 4 Ball Method)	ASTM D-2596	Load: 13 kg to 800 kg
			ASTM D-2783	
	Rheological Tests: Oils and Grease	Cone Penetration of Lubricating Grease	ASTM D-0217	8.5 mm to 47.5 mm
		Cone Penetration of Lubricating Grease, Using ¼ and ½ Scale	ASTM D-1403	8.5 mm to 47.5 mm
		Kinematic Viscosity of Transparent and Opaque Liquids (0 °C to 150 °C)	ASTM D-0445	0.42 cSt to 106 600 cSt
		Viscosity and Viscosity Change After Standing at Low Temperature (0 °C to -70 °C)	ASTM D-2532	0.42 cSt to 106 600 cSt
		Low-Temperature Torque of Ball Bearing Greases (0 °C to -75 °C)	ASTM D-1478	0 g/cm to 129 800 g/cm
	Corrosion Tests: Oil	Detection of Copper Corrosion from Petroleum Products	ASTM D-130	#1A to #4C (Chart)
	Corrosion Tests: Greases	Detection of Copper Corrosion from Lubricating Grease	ASTM D-4048	#1A to #4C (Chart)
		Determining Corrosion Preventative Properties of Lubricating Grease	ASTM D-1743	Pass/Fail Rating
	Oxidation Tests: Greases	Oxidation Stability of Lubricating Greases by the Oxygen Pressure Vessel Method	ASTM D-0942	-5 psi to 112 psi loss
	Performance Tests: Greases	Evaporation Loss of Lubricating Greases and Oils (100 °C to 150 °C)	ASTM D-0972	0 % to 100 % Evaporation
		Evaporation Loss Over Wide Temperature Range (93 °C to 316 °C)	ASTM D-2595	0 % to 100 % Evaporation
Determining the Water Washout Characteristics of Lubricating Grease		ASTM D-1264	0 % to 100 % Washout	



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Mechanical ^F	Performance Tests: Greases	Determining The Resistance of Lubricating Grease to Water Spray	ASTM D-4049	0 % to 100 % Spray Off
		Roll Stability of Lubricating Grease	ASTM D-1831	8.5 mm to 47.5 mm 0.1 mm (Change)
		Oil Separation from Lubricating Grease (Conical Sieve Method)	ASTM D-6184	0 % to 100 % Separation
		Oil Separation from Lubricating Grease During Storage	ASTM D-1742	0 % to 100 % Separation
		Dropping Point of Lubricating Grease Over Wide Temperature Range	ASTM D-2265	0 °C to 316 °C
	Physical Properties: Greases	Dropping Point of Lubricating Grease Over Wide Temperature Range	ASTM D-2265	0 °C to 316 °C
		Specific Gravity, Apparent, of Liquid Industrial Chemicals	ASTM D-0891	Temperature per specification

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.