

CERTIFICATE OF ACCREDITATION

The ANSI National Accreditation Board

Hereby attests that

The Lubrizol Corporation Wickliffe Testing Division

29400 Lakeland Boulevard Wickliffe, OH 44092

Fulfills the requirements of

ISO/IEC 17025:2017

In the field of

TESTING

This certificate is valid only when accompanied by a current scope of accreditation document. The current scope of accreditation can be verified at www.anab.org.

Jason Stine, Vice President

Expiry Date: 21 November 2025 Certificate Number: AT-2525



ANSI National Accreditation Board



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

The Lubrizol Corporation Wickliffe Testing Division

29400 Lakeland Boulevard Wickliffe, Ohio 44092 Andrea Pierce, Quality Manager andrea.pierce@lubrizol.com

TESTING

Valid to: November 21, 2025 Certificate Number: AT-2525

Mechanical

Version 009 Issued: November 14, 2023

Specific Tests and/or Properties Measured	Specificat <mark>ion, St</mark> andard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Corrosion Test	ASTM D7038 (L-33-1)	Lubricants	Dedicated Test Stand
General Motors Oxidation and Deposit Test	GMW17043	Lubricants	Dedicated Test Stand
Load Capacity of Lubricants - Shock Test	ASTM D7452 (L-42)	Lubricants	Dedicated Test Stand
Load-Carrying Capacity of Lubricants	ASTM D8165 (L-37-1)	Lubricants	Dedicated Test Stand
Thermal and Oxidative Stability for Oils	ASTM D5704 (L-60-1)	Lubricants	Dedicated Test Stand
Standard Test Method for Evaluation of Automotive Engine Oils in the Sequence IVB Spark-Ignition Engine	D8350	Lubricants	Dedicated Test Stand
Standard Test Method for Evaluation of Automotive Engine Oils in the Sequence IIIH, Spark-Ignition Engine	D8111	Lubricants	Dedicated Test Stand
Standard Test Method for Evaluation of Automotive Engine Oils for Inhibition of Deposit Formation in the Sequence VH Spark-Ignition Engine Fueled with Gasoline and Operated Under Low- Temperature, Light-Duty Conditions	D8256	Lubricants	Dedicated Test Stand





Mechanical

Version 009 Issued: November 14, 2023

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Standard Test Method for Evaluation of Performance of Automotive Engine Oils in the Mitigation of Low-Speed, Preignition in the Sequence IX Gasoline Turbocharged Direct-Injection, Spark- Ignition Engine	D8291	Lubricants	Dedicated Test Stand
Standard Test Method for Measurement of Effects of Automotive Engine Oils on Fuel Economy of Passenger Cars and Light-Duty Trucks in Sequence VIE Spark Ignition1, 2	D8114	Lubricants	Dedicated Test Stand
Standard Test Method for Measurement of Effects of Automotive Engine Oils on Fuel Economy of Passenger Cars and Light-Duty Trucks in Sequence VIF Spark Ignition Engine1, 2	D8226	Lubricants	Dedicated Test Stand
Standard Test Method for Determination of Timing- Chain Wear in a Turbocharged, Direct- Injection, Spark-Ignition, Four-Cylinder Engine	D8279	Lubricants	Dedicated Test Stand
This standard stipulates a test procedure for the measurement of the fuel economy performances of automobile gasoline engine lubricating oils (hereinafter, "engine oils") by the measurement of the fuel consumptions using a firing engine test.	JASO M 366: 2019	Lubricants	Dedicated Test Stand
FZG Scuffing Load Carrying Capacity Test for High EP Oils	CEC L-84-02	Lubricants	Dedicated Test Stand





Mechanical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Load Carrying Capacity Test for Transmission Lubricants		Lubricants	Dedicated Test Stand
FZG Pitting Load Carrying Capacity Test for Gear Oils	CEC L-108-19	Lubricants	Dedicated Test Stand

Chemical

Version 009 Issued: November 14, 2023

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Viscosity Shear Stability of Transmission Lubricants	CEC L-45-99	Lubricants	KRL Test Stands, Lab 378
Hot Surface Oxidation	CEC L-85-99	Lubricants	TA instruments Pressurized Differential Scanning Calorimeter (PDSC), Lab 283
Viscosity	ASTM D2270 / D445	Lubricants	Cannon Automatic Viscometer, Lab 176
Acid by Potentiometric Titration	ASTM D664, Method A	Lubricants	Metrohm Automatic Titrator, Balance, Lab 170
Insolubles in Lubricating Oils	ASTM D893	Lubricants	Centrifuge, Balance, Lab 183
Standard Test Method for Determining Automotive Engine Oil Compatibility with Typical Seal Elastomers	ASTM D7216	Lubricants	Immersion Baths, Lab 282
Determination of Yield Stress and Apparent Viscosity of Engine oils at Low Temperature	ASTM D4684	Lubricants	Mini-Rotary Viscometer (MRV), Lab 220
ICP	ASTM D5185	Lubricants	Inductively- Coupled Plasma Atomic Emission Spectrometer, Lab 183
High Temperature, High Sheer	CEC L-36-90	Lubricants	Tapered Bearing Simulator (TBS), Lab 176
NOACK	CEC L-40-93	Lubricants	Noack Evaporative Tester, Lab 171
FT-IR	D7214	Lubricants	Perkin Elmer IR Auto Sampler, Lab 171





Chemical

Specific Tests and/or Properties Measured	Specification, Standard, Method, or Test Technique	Items, Materials or Product Tested	Key Equipment or Technology
Determination of Oxidation Stability of Lubricating oils used in Automotive Transmissions by artificial Ageing	CEC L-48-00	Lubricants	Heated Oil bath, Lab 383
Determination of Oxidation and Nitration of used motor oils- infrared Spectrometric Method	DIN 51453	Lubricants	Perkin Elmer IR Auto Sampler, Lab 171

Note:

This scope is formatted as part of a single document including Certificate of Accreditation No. AT-2525.

Jason Stine, Vice President



