

Gear Lubricant Tests

Gold bullets indicate ISO/IEC 17025:2017 Accreditation

Method	Test Description	Sample Size
• ASTM D92	Flash Point, Cleveland Open Cup	250 mL
ASTM D94	Saponification Number	25 g
• ASTM D97	Pour Point	100 mL
• ASTM D130	Copper Strip Corrosion	100 mL
ASTM D287	API Gravity of Crude Petroleum / Petroleum Products (Hydrometer)	250 mL
• ASTM D445	Kinematic Viscosity, 40°C or 100°C, New Oil	125 mL
ASTM D445	Kinematic Viscosity, 0°C and Above	125 mL
• ASTM D664	Acid Number	50 mL
ASTM D665	Rust Prevention 4 Hours (Method A or B)	1 L
ASTM D665	Rust Prevention 24 Hours (Method A or B)	1 L
• ASTM D874	Sulfated Ash	50 g
• ASTM D892	Foaming, Sequence I - III (Specify option A if required)	1 L
ASTM D893	Insolubles, Pentane	25 mL
ASTM D943	Oxidation Characteristics (2.0 TAN or 1000 Hours)	600 mL
ASTM D1084B	T-Bar Viscosity	Varies
ASTM D1500	Color	150 mL
ASTM D2270	Viscosity Index (Includes D445 at 40°C and 100°C)	125 mL
ASTM D2422 & D445	Industrial Fluid Lubricants by Viscosity System	125 mL
ASTM D2603	Sonic Shear, Oils	100 mL
ASTM D2622	Sulfur by XRF - Wavelength Dispersive	30 mL
• ASTM D2670	Falex Pin & Vee Wear	200 mL
ASTM D2711	Demulsibility - Procedure A (No EP Additives)	2 L
ASTM D2711	Demulsibility - Procedure B (Contains EP Additives)	2 L
ASTM D2714	Block on Ring Friction and Wear	200 mL
ASTM D2782	Timken Extreme Pressure (Specify Starting Load)	4 L
• ASTM D2783	Four Ball Extreme Pressure Up to 400 kg.	200 mL
• ASTM D2783	Four Ball Extreme Pressure Above 400 kg.	200 mL
• ASTM D2887	Gas Chromatography - Carbon Distribution	10 mL
ASTM D2893	Oxidation Characteristics Extreme Pressure	500 mL
• ASTM D2983	Brookfield Viscosity, +20°C to -60°C (Per Temperature)	60 mL
ASTM D3233	Falex Extreme Pressure	200 mL
ASTM D3427	Air Release / Gas Bubble Separation	500 mL
• ASTM D4172	Four Ball Wear	100 mL
ASTM D4310	Sludging & Corrosion Tendency Up to 1000 Hours	1 L
ASTM D5182	FZG Gear Test - Up to 12 Stages	2 L
ASTM D5182	FZG Gear Test - Up to 14 Stages	2 L
ASTM D5183	Coefficient of Friction by Four Ball	100 mL
• ASTM D5453 & D5762	Sulfur and Nitrogen Package	20 mL
ASTM D5620	Drain and Dry Mode Using Falex Pin & Vee Block Test Machine	100 mL
ASTM D6022	Calculated Permanent Shear Stability Index	-
ASTM D7213	Boiling Range Distribution of Petroleum Distillates, 100°C to 615°C	10 mL
ASTM D7421	Extreme Pressure Properties of Lubricating Oils Using High-Frequency, Linear-Oscillation SRV	100 g
ASTM E1131	TGA Soot	5 mL
ASTM E1269 & E1133	Specific Heat and TGA for Fluids	100 mL
ASTM E1858	Oxidation Induction Time by PDSC	25 g
ASTM G 99	Wear Testing with a Pin-on-Disk Apparatus	100 g
CEC L-085-T99	Oxidation Induction Time by PDSC	25 g
• CEC L-45-99 Mod. & D445	KRL Shear 20 Hours + 1 Temperature pre & post shear KV	100 mL
DIN 51834	Tribological Test - Translatory Oscillation Apparatus - Part 2: Determination of Friction and Wear Data for Lubricating Oils	100 g



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Method	Test Description	Sample Size
DIN ISO 7148-1	Tribological Test - Metallic Bearing Materials for Plain Bearings Under Conditions of Boundary Lubrication	100 g
DIN ISO 7148-2	Tribological Test - Polymer-Based Plain Bearing Materials Under Specified Working Conditions	100 g
FTM 3456	Channeling Characteristics	1 L
ISO 1817	Elastomer Compatibility, Gear Oils, NBR/SRE 28SX, 168 Hours	500 mL
• SAVLAB LPYC	Density, Pycnometer	120 mL



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