

## Hydraulic Fluid Tests

Gold bullets indicate ISO/IEC 17025:2017 Accreditation

Method	Test Description	Sample Size
• ASTM D92	Flash Point, Cleveland Open Cup	250 mL
• ASTM D93	Flash Point, Pensky-Martins Closed Cup	250 mL
• ASTM D97	Pour Point	100 mL
• ASTM D130	Copper Strip Corrosion	100 mL
• ASTM D445	Kinematic Viscosity, 40°C or 100°C, New Oil	125 mL
• ASTM D445	Kinematic Viscosity, Below 0°C	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 D892	Foaming, Sequence I - III (Specify option A if required)	1 L
ASTM D943	Oxidation Characteristics (2.0 TAN or 1000 Hours)	600 mL
ASTM D972	Evaporation Loss (Grease) - Specify Time and Temperature	150 mL
ASTM D974	Acid Number	50 mL
ASTM D1298	Density / API Gravity, Hydrometer	350 mL
ASTM D1401	Emulsion Characteristics / Water Separability	100 mL
ASTM D1500	Color	150 mL
ASTM D2070	Thermal Stability (Hydraulic Fluids)	300 mL
ASTM D2112	Oxidation Stability of Inhibited Oil by Pressure Vessel at 140°C	150 mL
• ASTM D2270	Viscosity Index (Includes D445 at 40°C and 100°C)	125 mL
• ASTM D2272	Rotating Pressure Vessel Oxidation Test (RPVOT) Single Run	150 mL
ASTM D2532	Viscosity Stability at Low Temperature	125 mL
ASTM D2603	Sonic Shear, Oils	100 mL
ASTM D2619	Hydrolytic Stability	250 mL
ASTM D2670	Falex Pin & Vee Wear	200 mL
• ASTM D2896	Base Number	50 mL
• ASTM D2983	Brookfield Viscosity, +20°C to -60°C (Per Temperature)	60 mL
ASTM D3427	Air Release / Gas Bubble Separation	500 mL
ASTM D4052	Specific Gravity (Includes API Gravity)	50 mL
• ASTM D4172	Four Ball Wear	100 mL
ASTM D4289	Elastomer Compatibility NBR L and CR Grease	400 g
ASTM D4289	Elastomer Compatibility NBR L or CR Grease	200 g
ASTM D4310	Sludging & Corrosion Tendency Up to 1000 Hours	1 L
• ASTM D4683	High Temperature High Shear / TBS Viscosity, 150°C	150 mL
• ASTM D4739	Base Number	20 mL
• ASTM D4951	Elemental Analysis by Inductively Coupled Plasma, Wear Metals	10 mL
• ASTM D5133	Scanning Brookfield Viscosity (-5°C to -40°C)	50 mL
ASTM D5182	FZG Gear Test - Up to 12 Stages and 14 Stages	2 L
• ASTM D5185	Elemental Analysis by Inductively Coupled Plasma (No S)	10 mL
ASTM D5621	Sonic Shear, Hydraulic Fluids	100 mL
ASTM D6130	Elemental Analysis by ICP, Aqueous / Coolants / Sulfur, 5 elements	10 mL
• ASTM D6304	Water by Karl Fischer	100 mL
• ASTM D6417	Simulated Distillation by Gas Chromatography	10 mL
• ASTM D6616	High Temperature High Shear / TBS Viscosity, 100°C, New Oil	150 mL
• ASTM D6616	High Temperature High Shear / TBS Viscosity, 100°C, Used Oil	150 mL
ASTM D6793	Bulk Modulus, Up to 80°C	200 mL
ASTM D7214	FTIR Analysis, Oxidation by Peak Area Increase	50 mL
• ASTM D7216	Elastomer Compatibility, ACM, Polyacrylate	1.2 L
• ASTM D7216	Elastomer Compatibility, FKM, Fluoroelastomer	1.2 L
• ASTM D7216	Elastomer Compatibility, HNBR, Nitrile	1.2 L
• ASTM D7216	Elastomer Compatibility, MAC, Ethylene Acrylate	1.2 L



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Method	Test Description	Sample Size
• ASTM D7216	Elastomer Compatibility, VMQ, Silicone	1.2 L
• ASTM D7624	FTIR Analysis, In-Service Fluid, Nitration	50 mL
• CEC L-45-99 Mod. & D445	KRL Shear 04 Hours + 1 Temperature pre & post shear KV	100 mL
• CEC L-45-99 Mod. & D445	KRL Shear 08 Hours + 1 Temperature pre & post shear KV	100 mL
• CEC L-45-99 Mod. & D445	KRL Shear 20 Hours + 1 Temperature pre & post shear KV	100 mL
• CEC L-45-99 Mod. & D445	KRL Shear 30 Hours + 1 Temperature pre & post shear KV	100 mL
• CEC L-45-99 Mod. & D445	KRL Shear 40 Hours + 1 Temperature pre & post shear KV	100 mL
• CEC L-45-99 Mod. & D445	KRL Shear Custom Hours + 1 Temperature pre & post shear KV	100 mL
• CEC L-45-99 Mod. & D2270	KRL Shear 04 Hours + pre & post shear VI	100 mL
• CEC L-45-99 Mod. & D2270	KRL Shear 08 Hours + pre & post shear VI	100 mL
• CEC L-45-99 Mod. & D2270	KRL Shear 20 Hours + pre & post shear VI	100 mL
• CEC L-45-99 Mod. & D2270	KRL Shear 30 Hours + pre & post shear VI	100 mL
• CEC L-45-99 Mod. & D2270	KRL Shear 40 Hours + pre & post shear VI	100 mL
• CEC L-45-99 Mod. & D2270	KRL Shear Custom Hours + pre & post shear VI	100 mL
• CEC L-112	Elastomer Compatibility, RE6 FKM	500 mL
• CEC L-112	Elastomer Compatibility, RE7 ACM	500 mL
• CEC L-112	Elastomer Compatibility, RE8 HNBR	500 mL
• CEC L-112	Elastomer Compatibility, RE9 AEM	500 mL
FTM 3456	Channeling Characteristics	1 L
ISO 4406	Particle Count	50 mL
ISO 6072	Elastomer Compatibility, Hydraulic Fluid, AU, 1000 Hours	500 mL
ISO 6072	Elastomer Compatibility, Hydraulic Fluid, FKM2, 1000 Hours	500 mL
ISO 6072	Elastomer Compatibility, Hydraulic Fluid, HNBR, 1000 Hours	500 mL
ISO 6072	Elastomer Compatibility, Hydraulic Fluid, NBR1, 1000 Hours	500 mL
ISO 6072	Elastomer Compatibility, Hydraulic Fluid, NBR2, 1000 Hours	500 mL
• SAVLAB LPYC	Density, Pycnometer	120 mL
SAVLAB TBR	High Temperature Low Shear / TBR Viscosity, New Oil	150 mL
SAVLAB TBR	High Temperature Low Shear / TBR Viscosity, Other Shear	150 mL
SAVLAB TBR	High Temperature Low Shear / TBR Viscosity, Other Temperature	150 mL
SAVLAB TBR	High Temperature Low Shear / TBR Viscosity, Used Oil	150 mL



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