LANXESS

Lubricant Additives Business

ROYCO 756
Aviation Hydraulic Fluid

Type

MIL-PRF-5606K HYDRAULIC FLUID, PETROLEUM BASE; AIRCRAFT, MISSILE AND ORDNANCE

Description

ROYCO® 756 is a red-dyed, mineral oil based hydraulic fluid developed for the severe duty demands of aerospace and industrial service. ROYCO® 756 contains additives that provide excellent low temperature fluidity as well as exceptional anti-wear, oxidation / corrosion inhibition, and shear stability. In addition, metal deactivators and foam inhibitors are incorporated in this high viscosity index fluid to enhance performance in many general purpose hydraulic applications.

Application

ROYCO® 756 is designed for use in aircraft, missiles, autopilots, shock absorbers, cherry pickers, boom trucks, robotics, and auto wreckers requiring all-weather performance. ROYCO® 756 is particularly recommended for use in systems where a “super clean” fluid can contribute to improved component life and reliability. ROYCO® 756 can be used in unpressurized systems operating at temperature ranges from -54 to 90°C (-65 to 195°F) and in pressurized systems from -54 to 135°C (-65 to 275°F) at pressures up to 3000 psi.

Features and Benefits

• Wide operating temperature range
• Excellent low temperature properties
• Exceptional anti-wear performance
• “Super Clean” Fluid
• Excellent oxidation and corrosion resistance

Approvals and Specifications

ROYCO® 756 is qualified to MIL-PRF-5606K. This fluid is identified by military symbol OHA and NATO code H-515

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Limitations

ROYCO® 756 should not be used in systems using natural rubber seals.

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Aviation Hydraulic Fluid

Technical data*

PROPERTIES	TEST METHOD	ROYCO® 756
Acid Number, mg KOH/g	ASTM D 664	0.05
Barium Content, mg/kg	ASTM D 5185	0
Color, Compared to Standard	ASTM D 1500	Pass
Copper Strip Corrosion, 135 °C, 72 hours	ASTM D 130	1B
Evaporation Loss, 6 hours @ 71 °C, wt %	ASTM D 972	11.2
Flash Point, °C	ASTM D 93	87
Foaming Tendency, mL	ASTM D 892	50
Foam Stability, mL	ASTM D 892	0
Low Temperature Stability, 72 hours @ -54 °C	FTM 3458	Pass
Particle Contamination Level	SAE AS4059	5
Particle Counts for SAE AS4059 Level 5 Contamination	ISO 11500	
5-15 µm	ISO 11500	1250
16-25 µm	ISO 11500	146
26-50 µm	ISO 11500	43
51-100 µm	ISO 11500	3
100+ µm	ISO 11500	0
Gravimetric Filtration, mg/100 mL, 0.45 µm	ASTM D 4898	0.01
Pour Point, °C	ASTM D 97	-70
Relative Density @ 15.6/15.6 °C	ASTM D 4052	0.8659
Rubber Swell, Standard Synthetic Rubber L (168 hrs @ 70 °C), %	ASTM D 4289	24
Steel-On-Steel (75 °C, 40 Kg, 1200 rpm), average wear scar, mm	ASTM D 4172	0.70

**The analytical data are guide values.*

Technical data*

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PROPERTIES (continued)	TEST METHOD	ROYCO® 756
Kinematic Viscosity, mm2/s		
@ 100 °C	ASTM D 445	5.14
@ 40 °C	ASTM D 445	13.89
@ -40 °C	ASTM D 445	479
@ -54 °C	ASTM D 445	2013
Water Content, mg/kg	ASTM D 6304	65
Workmanship	Visual	Pass
Density, Pounds per Gallon	ASTM D 287	7.233
API Gravity	ASTM D 4052	31.46

**The analytical data are guide values.*

Technical data*

PROPERTIES	TEST METHOD	Base Oil
Acid Number, mg KOH/g	ASTM D 664	0.02
Color	ASTM D 1500	L0.5
Flash Point, °C	ASTM D 93	87
Pour Point, °C	ASTM D 97	-92
Relative Density @ 15.6/15.6 °C	ASTM D 4052	0.8692

**The analytical data are guide values.*

Packaging

ROYCO® 756 is available in 55 gallon drums, 5 gallon pails, 6x1 gallon cases and 24X1 quart cases.

Handling

Consult material safety data sheet (MSDS) for additional handling information on ROYCO®756

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® = registered trade mark

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