LANXESS

Lubricant Additives Business

ROYCO® 782

Aviation Hydraulic Fluid

Type

MIL-PRF-83282D Hydraulic Fluid, Fire Resistant, Synthetic Hydrocarbon Base, Metric.

Description

ROYCO® 782 is a red-dyed, "Super Clean" synthetic hydraulic fluid developed to meet the severe duty demands of today's military and industrial equipment. Modern additive technology is employed for oxidation stability, corrosion inhibition, and antiwear protection. ROYCO® 782 is compatible with petroleum-based fluids and all components used in mineral oil type hydaulic systems.

Application

ROYCO® 782 is intended for use in severe duty applications requiring both low and high temperature performance, extended periods between service, excellent shear stability, water demulsibility, and the safety factor afforded by the use of a synthetic fluid. ROYCO® 782 is recommended for use in aircraft, missile and ordnance systems using synthetic sealing materials as well as in heavy-duty contruction equipment and robotic hydraulic systems.

ROYCO® 782 is particularly recommended for hydraulic systems where a “super clean ” fluid can contribute to improved component life and reliability. ROYCO® 782 is suitable for use in systems operating at temperature ranges from -40 to 205°C where a high flash point fluid is desired.

Features and Benefits

- Wide operating temperature range
- “Super Clean ” Fluid
- Excellent wear protection
- Excellent oxidation and corrosion resistance

Approvals and Specifications

ROYCO® 782 is qualified to MIL-PRF-83282D Am 1 and is identified by NATO code H-537.

Technical data*

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PROPERTIES	TEST METHOD	ROYCO® 782
Neutralization 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
Evaporation Loss, 6.5 hours @ 205 °C, wt %	FTM 350	16.6
Fire Point, °C	ASTM D 92	250
Flash Point, °C	ASTM D 92	214
Foaming Tendency, mL	ASTM D 892	10
Foam Stability, mL	ASTM D 892	0
Low Temperature Stability, 72 hours @ -40°C	FTM 3458	Pass
4 Ball Wear at 75 °C, (40 Kg, 1200 rpm), average wear scar, mm	ASTM D 4172	0.56
4 Ball Wear at 75 °C, (10 Kg, 1200 rpm), average wear scar, mm	ASTM D 4172	0.22
4 Ball Wear at 75 °C, (1 Kg, 1200 rpm), average wear scar, mm	ASTM D 4172	0.11
Pour Point, °C	ASTM D 97	-78
Gravimetric Filtration, mg/100 mL, 0.45 µm	ASTM D 4898	0.01
Filtration Time, min	FTM 3009	6.6
Particle Counts per 100 mL	FTM 3009	
5-15 µm	FTM 3009	1741
16-25 µm	FTM 3009	218
26-50 µm	FTM 3009	73
51-100 µm	FTM 3009	3
100+ µm	FTM 3009	0
Pour Point, °C	ASTM D 97	-78

**The analytical data are guide values.*

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PROPERTIES (continued)	TEST METHOD	ROYCO® 782
Kinematic Viscosity, mm2/s		
@ 205 °C	ASTM D 445	1.14
@ 100 °C	ASTM D 445	3.49
@ 40 °C	ASTM D 445	14.2
@ -40 °C	ASTM D 445	1921
Water Content, mg/kg	ASTM D 1744	67
Specific Gravity (60 °F)	ASTM D 1298	0.8506
Workmanship	Visual	Pass
Density, Pounds per Gallon	ASTM D 287	7.084
API Gravity	ASTM D 4052	34.4

**The analytical data are guide values.*

Packaging

ROYCO® 782 is available in 55 gallon drums, 5 gallon pails, 6x1 gallon cases.

Handling

Consult material safety data sheet (SDS) for additional handling information on ROYCO®782

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