

# ROYCO® 756/756A HYDRAULIC FLUID, AIRCRAFT, MISSILE, AND ORDINANCE PETROLEUM BASE

**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 provided in this high viscosity index fluid to enhance performance in many general purpose hydraulic applications.

## APPLICATIONS

**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. ROYCO® 756A may be used in systems not requiring a “super clean” ID and where the convenience of a re-sealable container can provide cost savings.

## FEATURES AND BENEFITS

- **Wide operating temperature range**
- **Low temperature fluidity**
- **Exceptional anti-wear performance**
- **“Super Clean” Fluid to improve equipment life**
- **Excellent oxidation and corrosion inhibition**

## APPROVALS AND SPECIFICATIONS

**ROYCO® 756** meets all requirements and is qualified under MIL-SPEC: MIL-PRF-5606H(3) that supersedes Mil-H-5606G, Mil-O-5606, AN-O-336, AN-VV-O-336, and AAF-3580.

**ROYCO® 756A** meets the technical requirements of Mil-H-5606A.



## TYPICAL PROPERTIES

PROPERTIES	TEST METHOD	ROYCO® 756
<b>Kinematic Viscosity, cSt</b>		
@ 100°C	ASTM D445	4.90
@ 40°C	ASTM D445	13.2
@ -40°C	ASTM D445	600
@ -54°C	ASTM D445	2500
<b>Low Temperature Stability, -54°C, 72 hours</b>	FTM 3458	29.8
<b>Pour Point, °C</b>	ASTM D97	-62
<b>Flash Point, COC, °F</b>	ASTM D92	231
<b>Acid Number, mq KOH/g</b>	ASTM D664	0.4
<b>Density, pounds per gallon</b>	ASTM D287	7.261
<b>Copper Corrosion, 135°C, 72 hours, ASTM color</b>	ASTM D130	1B
<b>Water Content, ppm</b>	ASTM D6304	44.9
<b>4-Ball Wear, 75°C, 40 kg, 1200 rpm, 1 hour, mm</b>	ASTM D4172	.58
<b>Evaporation, 71°C, 6 hours, %wt loss</b>	ASTM D972A	10.4
<b>Gravimetric Filtration mg/100 ml, 0.45µ @ 25°C</b>	Para 4.4.3	
<b>Barium Content, ppm</b>	ASTM D5185	1
<b>Foam Resistance, 75°F</b>	ASTM D892	
foam volume, ml		32
foam stability		None
<b>API Gravity</b>	ASTM D4052	30.8
<b>Micron Size, count / mL</b>		
5-15 µ	FTM 3012	963
16-25 µ	FTM 3012	120
26-50 µ	FTM 3012	36
51-100 µ	FTM 3012	5
100+ µ	FTM 3012	1
<b>Water, Coulometric KF Titration, ppm</b>	ASTM D6304	45

PROPERTIES	TEST METHOD	ROYCO® 756A
<b>Pour Point, °C</b>	ASTM D97	-63
<b>Flash Point, COC, °F</b>	ASTM D93	231
<b>Acid Number, mq KOH/g</b>	ASTM D664	.04
<b>Density, pounds per gallon</b>	ASTM D287	7.26
<b>Kinematic Viscosity, cSt</b>		
@ 130°F	ASTM D445	10.6
@ -40°F	ASTM D445	467



**PACKAGING**

**ROYCO® 756** is available in 55-gallon drum, 5-gallon pail, 24 x 1-QT case and 6 x 1-gallon case.

**ROYCO® 756A** is available in 6 x 1 gallon cases. Other package sizes may be available on special request.

**LIMITATIONS**

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



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