

# ROYCO<sup>®</sup> 808 ADVANCED SYNTHETIC TURBINE ENGINE OIL

**ROYCO® 808** is a synthetic base lubricating oil for gas turbine engines requiring an oil with lower volatility and higher oxidative stability than is obtainable with conventional mineral based turbine oils. ROYCO 808 is formulated using the highest quality polyol ester base stocks compounded with additives to impart higher oxidation and corrosion resistance as well as enhanced antiwear protection. These benefits provide for exceptionally clean engine operation as well as extended drain intervals.

### APPLICATIONS

ROYCO<sup>®</sup> 808 is intended for use in the lubrication of aircraft gas turbine and industrial turboprop engines
especially those operating in extreme cold or hot environs. ROYCO<sup>®</sup> 808 is also recommended for use in engines, which require start-up after extended periods of "cold soak" such as aircraft, APU's and railroad industrial snow removal equipment. ROYCO<sup>®</sup> 808 may also be used as a control fluid in stationary turbine applications.

**ROYCO® 808** is not interchangeable with any other lubricating oils except those qualified under Mil-PRF-7808 or Mil-PRF-23699.

#### FEATURES AND BENEFITS

#### Features

- Excellent Thermal and Oxidative Stability
- Low pour point
- Excellent corrosion and wear protection
- Chemically stable

#### **Benefits**

- Maintains engine efficiency;
- Extends engine life;
- Reduces carbon deposits and sludge formation.
- Eases start-up in low ambient temperatures.
- Extends component life;
- Reduces engine maintenance costs.
- Lowers oil consumption and losses due to evaporation

# **APPROVALS & SPECIFICATIONS**

**ROYCO® 808** meets all requirements and is qualified under MIL-SPEC: MIL-PRF-7808L Grade 3, NATO Code O-148, UK Joint Service Designation OX-9.



# DATA SHEET



# PACKAGING

**ROYCO® 808** is available in 55 gallon drums, 5 gallon pails, and twenty-four by 1-quart cans per carton.

PROPERTIES	TEST METHOD	ROYCO® 80
Flash Point, °C (°F)	ASTM D92	220 (428)
Acid Number, mg KOH/gm	ASTM D664	0.13
Trace Sediment, mg/200 ml	Spec.	1.0
Evaporation Loss, 205°C, 6.5 hrs., %	ASTM D972B	22
Kinematic Viscosity, cSt		
@ 100°C	ASTM D445	3.1
@ 40°C		12.05
@ -51°C		7,675
Viscosity Stability, -51°C, 6 hrs., % change	ASTM D2532	0.2
Lead Corrosion, 325°F, 1 hour, g/m2	FTM 5321	-0.02
Silver-Bronze Corrosion, 232°C		
Silver, g/m <sup>2</sup>	FTM 5305	0.00
Bronze, g/m <sup>2</sup>		0.13
Accelerated Storage Stability, g/m2		
48 hrs, 110°C	Spec	-0.05
168 hrs, 110°C		-1.4
Elastomer Compatibility		
NBR "H" Rubber, 70°C/168 hrs, %	FTM 3604 FTM 3432	32
"FA" Rubber, 175°C/72 hrs., % Swell		8
Tensile Strength Change, %		-18
Elongation Change, %		-21
Hardness Change, %		-8
Static Foam Test		
Foam Volume, ml	FTM 3213	27
Foam Collapse Time, seconds		10
Oxidation Corrosion Test, 200°C, 96 hrs.		
Metal Coupon Weight Change, mg/cm2		
Aluminum	ASTM D4636	-0.05
Silver		-0.03
Bronze		0.05
Steel		0.01
M-50 (steel)		0.02
Magnesium		0.01
Titanium		0.01
Viscosity Change, 40°C, %		11.2
Acid Number Change, mg KOH/g		1.1
Insolubles, mg/100 ml		0.1
Density, 15°C, g/ml	Report	0.952

#### Page 2 of 3





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