



Royal Lubricants, Inc.

Product Bulletin
MIL-PRF-7808H Grade 3

ROYCO 808 SYNTHETIC BASED LUBRICATING OIL GAS TURBINE ENGINE

DESCRIPTION:

ROYCO 808 is a synthetic based 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 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 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 808** may also be used as a control fluid in stationary turbine applications.

LIMITATIONS:

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

PACKAGING:

ROYCO 808 is available in Quarts, 5 gallon pails, and 55 gallon drums. Other sizes may be available on special request.

SPECIFICATIONS:

ROYCO 808 meets all requirements and is qualified under MIL-SPEC: **MIL-PRF-7808L Grade 3.**

R808: 11/30/01

ROYCO 808

For more information please refer to the relevant Material Safety Data Sheet accompanying each product.

Warranty: All products purchased from Royal are subject to terms and conditions set out in the contract, order acknowledgement and/or bill of lading. Royal warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Royal is considered accurate but is furnished on the expressed condition that the customer shall make its own assessment to determine the product's suitability for a particular purpose. No warranty is expressed or implied regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.

PROPERTY	SPECIFICATION	TYPICAL
1) Flash Point, °F	400 min	440
2) Total Acid Number, mg KOH/gm	0.15	
3) Trace Sediment, mg/200 ml	5 max	1.0
4) Evaporation, %, 400°F/6.5 hrs.	30 max	20
5) Kinematic Viscosity, cSt		
@ 100°C	3.0 min	3.4
@ 40°C	11.5 min	12.0
@ -54°C	17,000 max	11,150
6) Viscosity Stability, -54°C, %	6 max	0.1
7) Lead Corrosion, 325°F/1 hr g/m ²	6 max	0.01
8) Silver-Bronze Corrosion, 232°C		
Silver, gm/m ²	4.5 max	0.01
Bronze, gm/m ²	4.5 max	0.05
9) Ryder Gear Test		
Deposit Rating	1.5 max	0.8
Neutralization Number Change	20 max	2.0
Viscosity Change, 40°C, %	100 max	12.0
Load Carrying Capacity, kN/m	420 min	550
Oil Consumption, ml	100 max	50
10) Accelerated. Storage Stability, gm/m ²		
48 hrs, 110C	40 max	0.10
168 hrs, 110°C	230 max	0.50
11) Elastomer Compatibility		
NBR "H" Rubber, 158°F/168 hrs, %	12-35	27
"FA" Rubber, 347°F/72 hrs., % Swell	2-25	16
Tensile Strength Change, %	+/-50 max	30
Elongation Change, %	+/-50 max	3.5
Durometer Hardness Change, %	20 max	9.0
12) Static Foam Test		
Foam Volume, ml	100 max	30
Foam Collapse Time, seconds	60 max	15
13) C.R.C. Oxidation Corrosion Test, 200°C/96 hrs.		
Metal Coupon Weight Change, mg/cm ²		
Aluminum	0.2 max	0.01
Silver	0.2 max	0.10
Bronze	0.4 max	0.10
Iron	0.2 max	0.10
M-50 (steel)	0.2 max	0.00
Magnesium	0.4 max	0.01
Titanium	0.2 max	0.01
Viscosity Change, 40°C, %	-5 to 25	5.0
Neutralization Number Change	4 max	0.9
Insolubles, mg/100 ml	Report	0.1
14) Density, 15°C, gm/ml	Report	0.952



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