



Royal Lubricants, Inc.

Product Bulletin
MIL-PRF-83282D

ROYCO 782 SYNTHETIC FIRE RESISTANT "SUPER CLEAN" HYDRAULIC FLUID

DESCRIPTION:

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

APPLICATIONS:

ROYCO 782 is intended for use in severe duty applications requiring both low and high temperature operation, extended time periods between service intervals, 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 construction equipment, and industrial robotic hydraulic systems. **ROYCO 782** is suitable for use in applications operating at temperatures from -40 to 204°C. This product is especially recommended for use where the high flash point provides added safety margins.

PACKAGING:

ROYCO 782 is available in 1-gallon containers, 5-gallon pails, and 55-gallon drums.

SPECIFICATIONS:

ROYCO 782 meets the requirements of and is qualified to MILSPEC: MIL-PRF-83282D Am 1

ROYCO 782

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.

TYPICAL PROPERTIES

TEST	RESULT
Kin. Viscosity, cSt	
@ 205°C	1.08
@ 100°C	3.50
@ 40°C	14.2
@ -40°C	2050
Viscosity Index	128
Flash Point, °F	445
Fire Point, °F	490
Pour Point, °F	-78
Total Acid No., mEq KOH/g	0.02
Specific Gravity, (15.6°C)	0.851
Gravimetric Filtration, mg	0.1
Trace Sediment, ml	0.001
Water Content, ppm	50
Water Sensitivity, % trans.	98
Evaporation, % loss	
205°C/6.5 hrs.	10.5
Synthetic Rubber Swell, %	
158°F/168 hrs.	21
4-Ball Wear, mm ² scar	
Kg/1200 RPM/1 hr/75°C	0.19
10 Kg/1200 RPM/1 hr/75°C	0.25
40 Kg/1200 RPM/1 hr/75°C	0.53
Solid Particle Contamination, auto counter, particles/litre	
5-15 µ	1700
16-25 µ	180
26-50 µ	50
51-100 µ	5
100+ µ	0
Foam Characteristics, ml @ 5 min blow/ ml @ 10 min	trace/0
High Temperature Stability	
(100 hrs/400°F w/ N ₂ blanket)	
Viscosity Change, % @ 40°C	1.0
Neutralization No. Change	0.04
Insolubles, mg.	0.00

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