

# ANDEROL PRODUCT DATA SHEET

## **ROYCO® 777**

SYNTHETIC FIRE RESISTANT LOW TEMPERATURE  
HYDRAULIC FLUID FOR AEROSPACE APPLICATIONS

### **GENERAL INFORMATION**

ROYCO 777 is a synthetic hydrocarbon and ester based fluid for use in hydraulic systems which require reliable operation in both extreme low and high temperature environs and all weather – all season performance outside the capability of traditional Mil-H-5606 and Mil-PRF-83282 fluids. The high flash and fire points also afford an improved margin of safety over mineral based fluids. ROYCO 777 is formulated with state of the art additive technology to provide superior oxidation and corrosion resistance, antiwear, and antifoaming protection. ROYCO 777 is super clean filtered to ensure optimum performance in particulate- monitored systems.

### **TYPICAL PROPERTIES:**

PROPERTIES	ROYCO 777
Kinematic Viscosity, cSt	
@ 100°	2.14
@ 40°	6.88
@ -40°	495
@ -55°	2045
Flash Point °C	180
Fire Point, °C	195
TAN, mq KOH/g	0.0
Evaporation, 150° 6.5 hr, %	12.5
Specific Gravity	0.846
Pour Point °C	-67
Low Temp. Stability, -54°C/72 hr	Conforms
High Temp. Stability, % viscosity.	Conforms
Gravimetric Filtration, mg/100 ml	0.12
Filter Time, minutes	3.5
Automated Particles, particles/l	
5-15 mu	1400
16-25 mu	150
26-50 mu	50
51-100 mu	3
> 100 mu	0

**ROYCO 777**

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

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## TYPICAL PROPERTIES (Continued):

PROPERTIES	ROYCO 777
Water Content, ppm	65
Foam Resistance, ASTM Seq I	20
Flame Propagation, cm/sec.	Conforms
Rubber Swell, NBR-L, % *	23
4-Ball Wear, 75oC, mm diameter	
1 kg Load	0.17
10 kg Load	0.22
40 kg Load	0.52

## APPLICATIONS

ROYCO 777 is recommended for use in aircraft, ordnance, and missile systems operating from -54°C to +135°C. This fluid should be considered for use in auto pilots, shock absorbers, brakes, flight-control systems, hydraulic servo-control systems, and other systems using synthetic elastomer seals. This fluid is especially recommended for use in high altitude aircraft that normally operate with extended loiter times and high endurance levels such as UAV's and ELINT systems.

## ADVANTAGES

- Wide operating temperature range
- Improved safety with high flash and fire points.
- Low temperature fluidity.
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## COMPATABILITY

Description of compatibility issues.

## APPROVALS

ROYCO 777 meets all requirements and is qualified to MIL-SPEC: MIL-PRF-87257A

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