

# AEROSHELL FLUID 71

AeroShell Fluid 71 is a preservative mineral hydraulic fluid of improved cleanliness. AeroShell Fluid 71 is composed of a mineral base oil with an additive package which results in a product with excellent corrosion preventative properties as well as excellent oxidation stability, and good anti-wear characteristics.

AeroShell Fluid 71 is dyed red.

The useful operating temperature range is  $-54^{\circ}\text{C}$  to  $+121^{\circ}\text{C}$ .

## APPLICATIONS

AeroShell Fluid 71 is intended for preserving hydraulic equipment in storage and also for use in rig testing of hydraulic components.

AeroShell Fluid 71 should only be used in hydraulic systems employing synthetic rubber seals suitable for MIL-PRF-5606/DEF STAN 91-48 (AeroShell Fluids 4 or 41) type of fluids. Refer to General Notes at the front of this section for further information.

AeroShell Fluid 71 is compatible with AeroShell Fluids 4, 31, 41, 51 and 61.

Chlorinated solvents should not be used for cleaning hydraulic components which use AeroShell Fluid 71. The residual solvent contaminates the hydraulic fluid and may lead to corrosion.

## SPECIFICATIONS

<b>U.S.</b>	Approved MIL-PRF-6083F
<b>British</b>	Equivalent DEF STAN 80-142
<b>French</b>	Equivalent to DCSEA 535/A
<b>Russian</b>	–
<b>NATO Code</b>	C-635
<b>Joint Service Designation</b>	Equivalent PX-26

PROPERTIES	MIL-PRF-6083F	TYPICAL
Oil type	Mineral	Mineral
Kinematic viscosity $\text{mm}^2/\text{s}$ @ $-40^{\circ}\text{C}$ @ $-54^{\circ}\text{C}$ @ $40^{\circ}\text{C}$	800 max 3500 max 13 min	525 2400 14.3
Flashpoint Pensky Martin Closed Cup $^{\circ}\text{C}$	82 min	88
Total Acidity $\text{mgKOH/g}$	0.2 max	0.12
Pourpoint $^{\circ}\text{C}$	$-59$ max	Below $-59$
Relative density @ $15.6/15.6^{\circ}\text{C}$	–	0.879
Water content $\text{ppm}$	500	200
Colour	Red	Red
Trace sediment $\text{mg/l}$	0.005 max	0.002
Oxidation & corrosion stability 168 hrs @ $121^{\circ}\text{C}$ – metal weight change – viscosity change @ $40^{\circ}\text{C}$ – acid number change $\text{mgKOH/g}$	Must pass $-5$ to $+20$ 0.2 max	Passes Passes Less than 0.2
Copper corrosion	3a max	Passes
Corrosion inhibition	Must pass	Passes

Table continued

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PROPERTIES	MIL-PRF-6083F	TYPICAL
Particle Size per 100 ml		
5 to 25 µm	10000 max	1170
26 to 50 µm	250 max	90
51 to 100 µm	50 max	10
Over 100 µm	10 max	1
Low temperature stability 72 hrs @ -54°C	Must pass	Passes
Shear stability change in viscosity @ 40°C %	2.0 max	0.06
Rubber swell L rubber %	19 to 28	23
Evaporation loss 22 hrs @ 100°C %m	75 max	62
Foaming tendency	Must pass	Passes
Steel on steel wear, wear scar diam, mm	1.0 max	Passes
Gravimetric filtration mg/100ml filtration time mins	0.5 max 15 max	Less than 0.5 12

A viscosity/temperature curve is shown at the end of this section.