



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°C to $+121^{\circ}\text{C}$.

DESIGNED TO MEET CHALLENGES

Main 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.

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, Approvals & Recommendations

- Approved MIL-PRF-6083F (US)
- Equivalent DEF STAN 80-142 (British)
- Equivalent to DCSEA 535/A (French)
- NATO Code C-635
- Joint Service Designation Equivalent PX-26

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

Typical Physical Characteristics

Properties		MIL-PRF-6083F	Typical
Oil type		Mineral	Mineral
Kinematic viscosity	@-40°C	mm ² /s	800 max
Kinematic viscosity	@-54°C	mm ² /s	3500 max
Kinematic viscosity	@40°C	mm ² /s	13 min
Flashpoint (Pensky Martin Closed Cup)		°C	82 min
Total Acidity		mgKOH/g	0.2 max
Pour point		°C	-59 max
Relative density	@15.6/15.6°C		-
Water Content		ppm	500
Colour		Red	Red
Trace sediment		mg/l	0.005 max
Corrosiveness & oxidation stability (168 hrs @ 121°C) - metal weight change			Must Pass
Corrosiveness & oxidation stability (168 hrs @ 121°C) - @40°C viscosity change		%	-5 to +20
Corrosiveness & oxidation stability (168 hrs @ 121°C) - acid number change		mgKOH/g	0.2 max
Copper corrosion			3a max
Corrosion inhibition			Must pass
Particle Size per 100ml		5 to 25 µm	10000 max
Particle Size per 100ml		26 to 50 µm	250 max

Properties		MIL-PRF-6083F	Typical
Particle Size per 100ml	51 to 100 µm	50 max	10
Particle Size per 100ml	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 22hrs	@100°C %m	75 max	62
Foaming tendency		Must Pass	Passes
Steel on steel wear, scar diam	mm	1.0 max	Passes
Gravimetric filtration	mg/100ml	0.5 max	Less than 0.5
Filtration time	mins	15 max	12

These characteristics are typical of current production. Whilst future production will conform to Shell's specification, variations in these characteristics may occur.

Health, Safety & Environment

■ Health and Safety

Guidance on Health and Safety is available on the appropriate Material Safety Data Sheet, which can be obtained from <http://www.epc.shell.com/>

■ Protect the Environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water.

Additional Information

■ Advice

Advice on applications not covered here may be obtained from your Shell representative.