Technical Data Sheet

AeroShell *LGF*

Mineral shock-absorber fluid for aircraft

AeroShell Landing Gear Fluid (LGF) is a mineral hydraulic fluid (MIL-PRF-5606) to which additional additives have been added to improve the extreme pressure characteristics and the fluid's natural lubricity. The lubricity agent provides a stable thin film layer to the metal surfaces at mild operating conditions. When severe conditions exist (landing/ touchdown), the extreme pressure additive supplies the load carrying needed at the metal-to-metal surfaces to prevent the occurrence of such phenomena as "ladder cracking" and "slip stiction" of the piston component of the landing gear. AeroShell LGF is AeroShell Fluid 41 plus additives.

DESIGNED TO MEET CHALLENGES

Main Applications

The excellent low temperature properties of AeroShell LGF make it particularly suitable in areas of low temperature operations.

AeroShell LGF is straw yellow in colour.

Specifications, Approvals & Recommendations

- BMS 3-32C Type II

  AeroShell Landing Gear Fluid (LGF) is not covered by any military specification.

- McDonnell Douglas DPM-6177

  For the latest approval, please confirm with the equipment manufacturer.

AeroShell LGF is approved for use in the shock struts of the following aircraft:

- Boeing 707/720, 727, 737, 747 (except those using BMS 3-11 fluids), 757, 767 and 777
- McDonnell Douglas DC-8, DC-9, DC-10, MD-80, MD-11
- Lockheed L1011 Tristar

For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk.

Compatibility & Miscibility

AeroShell LGF is compatible with AeroShell Fluids 4, 41 and 71.

Typical Physical Characteristics

Properties			Method	AeroShell LGF
Base Hydraulic Fluid Specification				MIL-PRF-5606H
Colour Yellow			ASTM D1500	L1.5
Density	@15.6°C		ASTM D4052	879
Kinematic Viscosity	@40°C	mm^2/s	ASTM D445	14.5
Flash Point		°C	ASTM D93	110
Total Acid Number		mgKOH/g	ASTM D664/974	3.1
Evaporation Loss	6hrs @71°C	%m	ASTM D972	18.0
Pourpoint		°C	ASTM D97	<-60
Foaming tendency			ASTM D892	Passes
Zinc		ppm	ASTM D4927	1 620

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**

  AeroShell LGF is unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of personal hygiene are maintained.

  Avoid contact with skin. Use impervious gloves with used oil. After skin contact, wash immediately with soap and water.

  Guidance on Health and Safety is available on the appropriate Safety Data Sheet, which can be obtained from your Shell representative.

- **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.

TYPICAL TEMPERATURE/VISCOSITY CURVE OF AEROSHELL HYDRAULIC FLUIDS