Technical Data Sheet

AeroShell **Oil Diesel Ultra**

Synthetic lubricating oil for aircraft diesel engines

AeroShell Oil Diesel Ultra is multigrade engine oil based on synthetic technology, designed for use in the new generation of compression ignition (Diesel) Aviation Piston Engines.
The formulation has been selected to be suitable in piston engines fuelled by Jet A or Jet A-1 and is designed for use in the latest highly rated turbocharged diesel engines under all operating conditions.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- AeroShell Oil Diesel Ultra is multi-grade piston engine oil based on synthetic technology, designed for use in the new generation of compression ignition (Diesel) Aviation Piston Engine. It also contains unique Shell approved additives to provide superior piston cleanliness resulting in a clean, efficient and reliable engine. These additives also include a powerful surface acting additive, which bonds to the surface of highly loaded engine parts, protecting the engine from scuffing damage.
- The oil has been developed to provide excellent component wear protection and engine cleanliness, based on flight experience with diesel aero engines in the field over recent years and substantial engine and component endurance tests with all major Diesel aero engine manufacturers.
- AeroShell Oil Diesel Ultra key performance features include the ability to sustain high bearing loads, neutralisation of acid build up from the Sulphur present in the fuel and high dispersancy to allow for the relatively high particle loading produced when burning Jet fuel.

Main Applications

- AeroShell Oil Diesel Ultra has been developed to be suitable for use in engines burning Jet fuel and its performance has been optimised to cope with the demands of this unique type of engine/fuel combination.
- AeroShell Oil Diesel Ultra MUST NOT be used in spark ignition or Avgas powered aircraft engines.

Specifications, Approvals & Recommendations

AeroShell Oil Diesel Ultra is approved for use in the following engines. Whilst this is correct at the time of writing, testing is ongoing to extend this approval listing as new engines are produced.

- Thielert/Centurion Engines: 1.7 & 2.0 Centurion (Other models yet to be produced)
- SMA: SR305-230E
- Austro Engine: AE300
- ACEA: Meets the requirements of A3/B4
- API Meets the requirements of SL/CF
- SAE: Viscosity grade 5W-30

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

Typical Physical Characteristics

Properties			Method	AeroShell Oil Diesel Ultra
Density	@15°C	kg/m³	ASTM D4052	850
Kinematic Viscosity	@40°C	cSt	ASTM D445	68.2
Kinematic Viscosity	@100°C	cSt	ASTM D445	12.0
Dynamic Viscosity	@30°C	mPa s	ASTM D5293	6 043
Pour Point		°C	ASTM D97	-39
Flash Point		°C	ASTM D92	215

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**

  This product 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 https://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 or Shell Lubricants representatives or technical helpdesks.