



# AeroShell Oil *Sport Plus 4*

Developed in conjunction with ROTAX®, AeroShell Oil Sport Plus 4 is the first oil specifically developed for light sport aviation piston engines such as the ROTAX® 912 & 914 series. A combination of low cylinder head temperature (compared with air cooled engines), low oil consumption and the engine internals requires a blend of high quality hydrocarbon base stocks, incorporating synthetic technology which allows full performance with different fuel types. This oil can be used in all climates.

## DESIGNED TO MEET CHALLENGES

### Performance, Features & Benefits

- First specific oil for Light Sport and Very Light/Ultra light aircraft engines.
  - Promotes engine cleanliness.
  - Helps keep engines sludge and varnish free.
  - Helps reduce oil consumption.
  - Helps engines reach TBO (Time Between Overhauls).
  - Protects highly stressed engines parts against scuffing and wear.
  - Anti-foaming additives to maximise lubrication effectiveness – especially for those engines operating an integrated gearbox.
  - Better cold flow characteristics for easier starts and quicker protection.
  - High thermal stability for longer-lasting and safer lubrication.
  - Can be used in any climate.
  - Advanced anti-rust and anti-wear package.
- AeroShell Oil Sport Plus 4 can be used in engines which operate on both unleaded gasoline and Avgas 100LL. The correct choice of additives and good solvent properties allow the oil to handle lead by-products that can form a semi solid sludge in the oil which can restrict oil passages and compromise lubrication. AeroShell Oil Sport Plus 4 is superior in this respect to those oil types intended for automotive/motorcycle application.
  - Please refer to Operators Handbook/Manual for the correct oil drain interval when operating on different fuels.

### Main Applications

- AeroShell Oil Sport Plus 4 is intended for use in four-stroke (four-cycle) aircraft piston engines that are of an original automotive design and which cannot, therefore, use traditional Ashless Dispersant aircraft engine oil types. These engines include carburetted, fuel-injected and turbocharged types such as the ROTAX® 912 & 914 series.
  - AeroShell Sport Plus 4 is to be used in integrated gearbox and wet clutch systems.
- ### Specifications, Approvals & Recommendations
- No Aviation specifications yet defined
  - Meets the requirements of JASO MA.
  - Listed in Rotax Service Instruction SI-912i-01/SI-0912-016/SI-914-019 "Selection of Suitable Operating Fluids for Rotax Engine Type 912 and 914 (Series)" as an Aviation oil tested and released by BRP-Powertrain, for use with both leaded Avgas and unleaded fuel.
  - Do not use AeroShell Oil Sport Plus 4 in engines that are designed to use Ashless Dispersant aviation piston engine oils such as AeroShell W oils. This includes air-cooled Continental Motors and Textron Lycoming engines.
  - Please consult Operating Handbook/Manual to confirm the correct lubricant specification before use.
- 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			Method	Typical
SAE Viscosity grade				10W-40
Density	@ 15°C	kg/l	ASTM D4052	0.871
Kinematic viscosity	@100°C	mm <sup>2</sup> /s	ASTM D445	14.46
Kinematic viscosity	@40°C	mm <sup>2</sup> /s	ASTM D445	94.2
Viscosity Index			ISO 2909	159
Pour Point		°C	ISO 3016	-33
Flash Point (COC)		°C	ISO 2592	228

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.