Technical Data Sheet

AeroShell Oil *W80 Plus*

Mineral ashless dispersant oil for aircraft piston engines.

AeroShell Oil W80 Plus is a single grade oil that combines the single grade, ashless dispersant performance found in AeroShell Oil W80 and the anti-wear/anti-corrosion additives of AeroShell Oil W 15W-50 Multigrade. It is the oil for pilots who prefer a single grade but who also want the extra protection and performance.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Blended from selected high viscosity mineral base oils.
- Contains AeroShell's proven W Oils additive package.
- Additional anti-wear additives (containing Lycoming additive LW 16702 equivalent).
- Additional anti-corrosion additives.
- Fully compatible with other approved aircraft piston engine oils.

Main Applications

- The advanced additives in AeroShell Oil W80 Plus provide better rust and wear protection than conventional single grades. The additives work as a protective barrier to prevent critical parts from being slowly degraded by rust or wear, especially when an aircraft sits idle. This protection helps keep the camshaft and lifters coated, reducing the likelihood of premature damage and helping operators reach TBO.

Specifications, Approvals & Recommendations

- SAE J1899 SAE 40
- AMOC FAA AD 80-04-03 R2 p.1b
- AeroShell Oil W80 Plus already contains, in the correct proportions, an anti-wear additive equivalent to the Lycoming additive LW 16702; thus complying with FAA Airworthiness Directive 80-04-03 R2 p.1b. Operators who use AeroShell Oil W80 Plus DO NOT need to add this Lycoming additive to the oil.
- AeroShell Oil W80 Plus is qualified for use in all Continental Motors liquid cooled and air cooled aircraft piston engines.
- Textron Lycoming: 301F, Service Bulletins 446E and 471B, Service Instruction 1409C
- Continental: SIL 99-2

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

Typical Physical Characteristics

Properties			Method	SAE J1899 Grade 40	Typical W 80 Plus
Density	@15°C	kg/m³	ASTM D4052	Report	886
API Gravity			ASTM D287	Report	27.9
Kinematic Viscosity	@40°C	mm²/s	ASTM D445	Report	135
Kinematic Viscosity	@100°C	mm²/s	ASTM D445	12.5 to 16.3	14.1
Viscosity Index			ASTM D2270	100 min	> 101
Pour Point		°C	ASTM D5949	-22 max	< -24
Flash Point		°C	ASTM D92	225 min	> 250
Total Acid Number		mgKOH/g	ASTM D664/974	1.0 max	< 0.2
Sulphur		%m	ASTM D4951	0.8 max	0.30
Copper corrosion 3 hrs	@100°C		ASTM D130	1 max	1a
Ash Content		%m	ASTM D482	0.011 max	< 0.004
Trace Sediment		ml/100ml	ASTM D2273	Must pass	Passes
Foaming Tendency			ASTM D892	Must pass	Passes

Properties		Method	SAE J1899 Grade 40	Typical W 80 Plus
Trace Metal Content	ppm	ASTM D4951	Must pass	Passes

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 representative.