



AeroShell Grease 7

Synthetic Grease for Aircraft

AeroShell Grease 7 is an advanced multi-purpose grease, composed of a synthetic oil and clay thickener, possessing good load carrying ability over a wide temperature range. It is inhibited against corrosion and has excellent resistance to water.

The useful operating temperature range is -73°C to $+121^{\circ}\text{C}$.

DESIGNED TO MEET CHALLENGES

Main Applications

- AeroShell Grease 7 satisfies nearly all the airframe grease requirements of turbine engined aircraft and also those of piston engined aircraft provided that seal incompatibility does not occur. Most civil aircraft manufacturers approve AeroShell Grease 7 as a general purpose grease either by brand name or by specification. It is recommended for lubricating highly loaded gears, actuator screw mechanisms, etc., also for instrument and general airframe lubrication within the temperature range of -73°C to $+121^{\circ}\text{C}$.

Specifications, Approvals & Recommendations

- MIL-PRF-23827C (Type II)
- COMAC QPL-CMS-OL-302

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

Compatibility & Miscibility

- AeroShell Grease 7 contains a synthetic ester oil and should not be used in contact with incompatible seal materials.
- AeroShell Grease 7 is a clay-based grease approved to MIL-PRF-23827C Type II; it should not be mixed with soap-based greases approved to MIL-PRF-23827C Type I.

Typical Physical Characteristics

Properties	Method	MIL-PRF-23827C Type II	Typical
Oil type		Synthetic	Synthetic ester
Thickener type		Clay	Clay
Colour		-	Beige
Base Oil Viscosity @40°C mm ² /s	ASTM D445	-	11.2
Useful operating temperature range °C		-	-73 to +121
Drop point °C	ASTM D2265	165 min	Min 300
Worked penetration @25°C	ASTM D217	270 to 310	285
Penetration unworked @25°C	ASTM D217	200 min	282
Worked Stability 100,000 strokes 0.1mm	FED-STD-791-313	270 - 375	289
Oxidation Stability 100h @ 99°C kPa	ASTM D942	70.00 max	17
Oil separation 30 hrs @100°C %m	ASTM D6184	5 max	2.5
Water Washout @38°C %m	ASTM D1264	20 max	6
Evaporation Loss 22h @ 100°C %m	ASTM D2595	2 max	1.3
Four Ball EP Load Wear Index kgf	ASTM D2596	30 min	40
Low Temperature Torque - Start @-73°C Nm	ASTM D1478	1.00 max	0.23

Properties		Method	MIL-PRF-23827C Type II	Typical
Low Temperature Torque - Run	@-73°C Nm	ASTM D1478	0.10 max	0.03
Copper Corrosion	24h @ 100°C	ASTM D4048	1b max	Passes
Particle Count	part/ml	FED-STD-791 M.3005	Must pass	Passes
Rust Prevention	52°C, 48h	ASTM D1743	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.