



# AeroShell Grease 7

AeroShell Grease 7 is an advanced multi-purpose grease, composed of a synthetic oil thickened with Microgel®, 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  $-73^{\circ}\text{C}$  to  $+149^{\circ}\text{C}$ .

## 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  $-73^{\circ}\text{C}$  to  $+149^{\circ}\text{C}$ .

### Specifications, Approvals & Recommendations

- U.S. : Approved MIL - PRF-23827C (Type II )
  - French : Equivalent DCSEA 354/A
- For a full listing of equipment approvals and recommendations, please consult your local Shell Technical Helpdesk, or the OEM Approvals website.

### 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 MILPRF-23827C Type I.

### Typical Physical Characteristics

Properties		MIL-PRF-23827C Type II	Typical
Oil type		Synthetic	Synthetic ester (Diester)
Thickener type		Clay	Microgel
Base Oil viscosity	@ $-40^{\circ}\text{C}$	mm <sup>2</sup> /s	1150
Base Oil viscosity	@ $40^{\circ}\text{C}$	mm <sup>2</sup> /s	10.3
Base Oil viscosity	@ $100^{\circ}\text{C}$	mm <sup>2</sup> /s	3.1
Useful operating temperature range		$^{\circ}\text{C}$	$-73$ to $+149$
Drop point		$^{\circ}\text{C}$	165 min
Worked penetration	@ $25^{\circ}\text{C}$		270 to 310
Unworked penetration	@ $25^{\circ}\text{C}$		200 min
Bomb Oxidation pressure drop 100 hrs	@ $99^{\circ}\text{C}$	kPa	70 max
Bomb Oxidation pressure drop 500 hrs	@ $99^{\circ}\text{C}$	kPa	105 max
Oil separation 30 hrs	@ $100^{\circ}\text{C}$	% m	5 max
Water resistance test loss	@ $38^{\circ}\text{C}$	% m	20 max
Evaporation loss 22 hrs	@ $100^{\circ}\text{C}$	% m	2.0 max
Mean Hertz Load		kg	30 min
Copper corrosion 24 hrs	@ $100^{\circ}\text{C}$		Must pass
Bearing protection 2 days	@ $52^{\circ}\text{C}$		Must pass
Anti-friction bearing performance	@ $121^{\circ}\text{C}$	hrs	2460
Colour			Buff

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.