Technical Data Sheet

AeroShell **Grease *58***

Synthetic grease for aircraft wheel bearings

AeroShell Grease 58 is an advanced general purpose and wheel bearing grease composed of a synthetic base fluid and a lithium complex soap thickener. AeroShell Grease 58 possesses outstanding combination high performance characteristics including high load carrying, corrosion protection, mechanical stability, oxidation resistance and wear resistance.
The useful operating temperature range is -54°C to +175°C

DESIGNED TO MEET CHALLENGES

Main Applications

AeroShell Grease 58 has been developed to exceed the requirements of the SAE AMS 3058 Wide Temperature Range Lithium Complex Aircraft Wheel Bearing Grease specification. It is recommended for use wherever severe operating conditions are encountered as in high bearing loads, high speeds, wide operating temperature range, and particularly where long grease retention and high resistance to water washout and corrosive fluids are required. AeroShell Grease 58 is the latest member of the AeroShell Lithium Complex Grease portfolio which includes AeroShell Greases 33 and 64.

The wide range of applications include aircraft wheel bearings, engine accessories, control systems, actuators, screw-jacks, servo mechanisms and electric motors, helicopter rotor bearings, instruments, airframe lubrication, hinge pins, static joints, landing gears.

Specifications, Approvals & Recommendations

- SAE AMS3058
- AIMS 09-06-003

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

Typical Physical Characteristics

Properties			Method	SAE AMS3058	Typical
Oil type				Synthetic Hydrocarbon or Ester	Synthetic Hydrocarbon
Thickener type				Lithium or Lithium Complex	Lithium Complex
Colour			Visual	-	Yellow
Base Oil Viscosity	40°C	mm^2/s	ASTM D445	165 max	100
Useful operating temperature range		°C		-54 to +175	-54 to +175
Drop point		°C	IP 396	250 min	Min 250
Worked penetration	@25°C		ASTM D217	265 to 305	280
Penetration unworked	@25°C		ASTM D217		270
Oxidation Stability	100h @ 99°C	kPa	ASTM D942	35 max	30
Oil separation 30 hrs	@175°C	%m	ASTM D6184	8 max	4
Water Washout	@79°C	%m	ASTM D 1264	15 max	1.5
Evaporation Loss	22h @ 175°C	%m	ASTM D2595	10 max	4.9
Extreme Pressure Weld Load	@27°C	kg	ASTM D2596	315 min	400
Low Temperature Torque - Start	@-54°C	Nm	ASTM D1478	2.0 max	0.8
Low Temperature Torque - Run	@-54°C	Nm	ASTM D1478	0.5 max	0.15

Properties			Method	SAE AMS3058	Typical
Copper Corrosion	24h @ 100°C		ASTM D4048	Must pass	Passes
Dynamic Rust Prevention 3% NaCl 7 days	@25°C		ASTM D6138	1/1 max	0/0
Roll Stability 10% Water		1/10 mm	ASTM D1831	-20 to +50	20

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 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.