Technical Data Sheet

AeroShell **Grease** *22*

Synthetic grease for aircraft

AeroShell Grease 22 is a versatile advanced general purpose grease composed of a synthetic hydrocarbon oil and clay thickener, with outstanding performance characteristics. Appropriate additives are included to achieve the necessary oxidation and corrosion resistance, anti-wear properties and load carrying properties.
The useful operating temperature range is –54°C to +177°C.

DESIGNED TO MEET CHALLENGES

Main Applications

- AeroShell Grease 22 is especially 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 are required.
- 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.
- AeroShell Grease 22 contains a synthetic hydrocarbon oil and should not be used in contact with incompatible seal materials.

Specifications, Approvals & Recommendations

- MIL-PRF-81322G
- MIL-PRF-24508B
- DEF STAN 91-52 (British)
- COMAC QPL-CMS-OL-301
- DCSEA 395/A (French)
- Russian : Analogue of CIATIM 201 and 203, VNII NP 207, ERA (VNII NP 286M) and ST (NK-50)
- NATO Code G-395
- Joint Service Designation : XG-293

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

Typical Physical Characteristics

Properties			Method	MIL-PRF-81322G	AeroShell Grease 22 Typical
Oil type					Synthetic Hydrocarbon
Thickener type					Clay
Colour			Visual		Amber
Base Oil viscosity	@-40°C	mm^2/s			7 500
Base Oil viscosity	@40°C	mm^2/s			30.5
Base Oil viscosity	@100°C	mm^2/s			5.7
Useful operating temperature range		°C			-54 to +177
Dropping point		°C	ASTM D2265	232 min	>300
Worked penetration	@25°C		ASTM D217	256 to 320	283
Bomb Oxidation pressure drop 100 hrs	@99°C	kPa	ASTM D942	83 max	14
Bomb Oxidation pressure drop 500 hrs	@99°C	kPa	ASTM D942	172 max	21
Oil separation 30 hrs	@177°C	% m	ASTM D6184	2.0 to 8.0	5.8
Water washout	@41°C	% m	ASTM D1264	20 max	2.0
Evaporation loss (22 hrs)	@177°C	% m	ASTM D2595	10 max	1.1

Properties			Method	MIL-PRF-81322G	AeroShell Grease 22 Typical
Anti-friction bearing performance	@177°C	hrs	ASTM D3336	400 min	>400
Load carrying capacity		kg	ASTM D2596	30min	40
Copper corrosion 24 hrs	@100°C		ASTM D4048 FED-STD-791 5309	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.