Technical Data Sheet

# AeroShell **Grease *5***

***Mineral grease for aircraft***

AeroShell Grease 5 is a high temperature grease composed of a mineral oil thickened with Microgel®, possessing good load-carrying ability. It is inhibited against oxidation and corrosion and has excellent resistance to water.

The useful operating temperature range is –18°C to +149°C.

## DESIGNED TO MEET CHALLENGES

### Main Applications

- AeroShell Grease 5 is particularly effective for use as a wheel bearing grease, especially when landing speeds are high, and is suitable for the lubrication of aircraft and engine accessories operating at high speeds and at relatively high temperatures, e.g. magnetos, generators and starters. For the lubrication of rolling bearings which are required to start at temperatures as low as –18°C an adequate period should be allowed for the grease to channel.

### Specifications, Approvals & Recommendations

- MIL-G-3545C (obsolete)
- DTD.878A (obsolete)
- DCSEA 359/A (equivalent)
- NATO Code G-359 (obsolete)
- Joint Service Designation XG-277 (obsolete)

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

### Typical Physical Characteristics

| Properties | | | Method | MIL-G-3545C | Typical |
|---|---|---|---|---|---|
| Oil type | | | | - | Mineral |
| Thickener type | | | | - | Microgel |
| Colour | | | Appearance | - | Amber |
| Base Oil Viscosity | @40°C | $mm^2/s$ | ASTM D445 | - | 500 to 525 |
| Base Oil Viscosity | @100°C | $mm^2/s$ | ASTM D445 | - | 32 |
| Useful operating temperature range | | °C | | - | –18 to +149 |
| Drop point | | °C | ASTM D2265 | 177 min | Min 288 |
| Worked penetration | @25°C | | ASTM D217 | 250 to 300 | 281 |
| Oxidation Stability | 100h @ 99°C | psi | ASTM D942 | 10 max | 5 |
| Oxidation Stability | 500h @ 99°C | psi | ASTM D942 | 25 max | 5 |
| Oil separation 30 hrs | @100°C | %m | ASTM D6184 | 5 max | 2 |
| Water Washout | @41°C | %m | ASTM D1264 | 20 max | 4.5 |
| Low Temperature Torque - Start | @-17.8°C | Nm | ASTM D1478 | 1.471 max (15000 g-cm) | 0.3432 |
| Low Temperature Torque - Run | @-17.8°C | Nm | ASTM D1478 | 0.4903 max (5000 g-cm) | 0.0579 |
| Copper Corrosion | 24h @ 100°C | | FED-STD-791-5309 | Must pass | Passes |
| Particle Count | | part/ml | FED-STD-791 M.3005 | Must pass | Passes |
| Rust Test | | | 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**

  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.