



Technical Data Sheet

Formerly Known As: **PANOLIN POLAR SYNTH 30**

Shell PANOLIN S4 Polar Synth 30

- Low Temperature Performance
- Extended Life
- Versatile application
- Readily Biodegradable

Hydraulic Fluid - High performance, readily biodegradable, saturated synthetic esters for lower temperature applications.

Shell PANOLIN S4 Polar Synth 30 is a fully synthetic, high-performance, zinc-free hydraulic fluid based on saturated synthetic esters. This hydraulic fluid is readily biodegradable with a low ecotoxicity, particularly suited for use in environmentally sensitive areas, for use in stationary and mobile hydraulic systems including construction and forestry.

High-Performance Biodegradable Lubricants

Performance, Features & Benefits

- **Low Temperature Performance**

Shell PANOLIN S4 Polar Synth 30 is designed for hydraulic systems working at very low temperatures due to pumpability driven by low temperature fluidity.

- **Wear Protection**

Shell PANOLIN S4 Polar Synth 30 is designed to help equipment operate without interruptions. Shell PANOLIN S4 Polar Synth 30 offers good wear protection of hydraulic equipment. Shell PANOLIN S4 Polar Synth 30 has good oxidation resistance which results in reduced fluid degradation, reducing filter blockage. This helps prevent component failures, frequent filter and fluid changes, downtime, fluid consumption and parts and labour costs.

Main Applications



Specifications, Approvals & Recommendations

- Meets EN 16807-2016 criteria of bio-lubricants and bio-based lubricants
- Meets USDA Bio-preferred programme
- Biodegradable OECD 301B >60%

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

Compatibility & Miscibility

- It is strongly recommended that an oil sample is taken from the system following changeover and analysed via the Shell Rapid Lubricants Analysis service to confirm the new fluid charge is fit for use.
- This lubricant should not be mixed with other biodegradable hydraulic fluids to ensure that the environmental properties and performance of fluid is maintained. The system should be drained and flushed thoroughly when changing fluids, guidelines on fluid change-over can be found in ISO15380 Annex A.

Typical Physical Characteristics

Properties			Method	Shell PANOLIN S4 Polar Synth 30
Kinematic Viscosity	@40°C	mm ² /s	ASTM D445	30.4
Pour Point		°C	ASTM D97	-36
Flash Point		°C	ASTM D92	160
Density	@15°C	kg/m ³	ASTM D4052	890

These characteristics are typical of production, 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.

• Additional Technical Advice

The information and guidance offered for use of Shell PANOLIN products is based on experience and understanding gained through the development and manufacturing of lubricants. The performance of the products can be influenced by a number of variables, not limited to, contamination, operating temperature, equipment application, external environment and material type. It is recommended that you discuss application and fluid recommendations with both your OEM and local Shell technical representative before the product is used. Advice given is non binding and Shell will not be held liable for any consequence as a result of or through misuse of the fluid.