



Technical Data Sheet

Formerly Known As: **PANOLIN MARGREASE W EP 0 460**

Shell **PANOLIN S5 Grease EAL A460 0**

- EU Ecolabel Certified
- Calcium Complex
- USA EPA VGP compliant
- Readily Biodegradable

EP universal grease - readily biodegradable, synthetic esters

Shell PANOLIN S5 Grease EAL A460 0 is a high performance readily biodegradable grease particularly suited for use in environmentally sensitive areas where eco-label compliance is required, including use on roller and slide bearings, conveyor and drive chains, steel ropes and cables, and open gears. This grease is based upon an anhydrous calcium soap thickener and is designed to offer excellent resistance to water washout, outstanding load carrying capacity and good anti-corrosion properties.

High-Performance Biodegradable Lubricants

Performance, Features & Benefits

- **Wear Protection**

Outstanding load carrying capacity and excellent corrosion resistance properties provide protection over a wide range of temperatures and conditions and ensure long component life.

- **Maintaining system efficiency**

Shell PANOLIN S5 Grease EAL A460 0 fluid has excellent water resistance to water washout. Excess water can be easily drained from lubrication systems, which helps to extend the life of equipment and ensures efficient lubrication of contact areas.

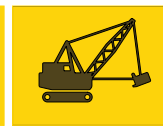
- **Wide temperature range**

Shell PANOLIN S5 Grease EAL A460 0 has excellent low temperature characteristics with good temperature range, operating temp -40 degC to 100 degC.

- **Lower Environmental Impact**

Recommended for use in environmentally sensitive areas: An 'environmentally acceptable lubricant' as defined by the USA EPA 2013 Vessel General Permit and offers reduced impact of leak or accidental spillage into the environment when used in marine environments compared to conventional mineral oils. Readily biodegradable - biodegraded by over 60% after 28 days in the OECD 301 B carbon dioxide evolution test. Low Ecotoxicity - Classified as 'not harmful' to bacteria, algae, freshwater and marine invertebrates, and fish when tested as water-accommodated fractions (WAFs) according to OECD and EPA test guidelines.

Main Applications



Specifications, Approvals & Recommendations

- Meets the requirements of EU Ecolabel - (SE/027/012)
- NLGi 0
- Swedish Standard SS 15 54 34 SP
- Meets requirement of United States Environmental Protection Agency's (EPA) 2013 vessel general permit (VGP)
- 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.

Typical Physical Characteristics

Properties			Method	Shell PANOLIN S5 Grease EAL A460 0
NLGI Grade				0
Appearance, visual colour				Yellow
Soap Type				Anhydrous Calcium
Base Oil (type)				Synthetic fully saturated ester
Base Oil Kinematic Viscosity	@40°C	mm ² /s	ASTM D445	460
Base Oil Kinematic Viscosity	@100°C	mm ² /s	ASTM D445	50
Cone Penetration, Worked			DIN 2137	355 - 385
Dropping Point			IP 396	140

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.