



Technical Data Sheet

- Contains Solid Lubricants
- High Temperature
- Clay

Shell Gadus S2 U500 1

High Performance Heavy Duty Grease

Shell Gadus S2 U500 1 Grease, based on an inorganic non-soap thickener and a specially selected base oil, will provide satisfactory lubrication beyond the temperature limitations of soap based greases.

Shell Gadus S2 U500 1 is specifically formulated using a non-melting thickener that ensures it will remain in service under conditions where soap-thickened greases melt and flow out.

Oxidation stability is also improved by the addition of a special high temperature oxidation inhibitors.

DESIGNED TO MEET CHALLENGES

Performance, Features & Benefits

- Shell Gadus S2 U500 1 is recommended for the lubrication of bearings, bushings and slides that operate at high temperature such as kiln car bearings, oven conveyor bearings, furnace fan bearings, paper mill dryers, corrugators, trunnion bearings, soot blowers, Lehr bearings, and other severe applications. Care should be taken to provide adequate re-lubrication. Inadequate replenishment will lead to drying and hardening.
- Good high temperature anti-oxidants fortifies against hardening and thermal breakdown
- Good rust and corrosion protection

Sealing

Shell Gadus S2 U500 1 Grease does not melt like soap thickened greases and hence its consistency changes only marginally with increasing temperature. In bearings operating at high temperature it resists softening and remains in place providing good sealing and continuous lubrication even in the presence of vibration.

Specifications, Approvals & Recommendations

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

Main Applications



Typical Physical Characteristics

Properties			Method	Shell Gadus S2 U500 1
NLGI Consistency				1
Soap Type				Inorganic (clay)
Base Oil (Type)				Mineral
Cone Penetration, Worked	@25°C	0.1mm	IP 50 / ASTM D217	310-340
Dropping Point			IP 396	None
Flash Point (COC)			ASTM D92	580 (304)

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**

Shell Gadus S2 U500 1 Grease does not melt like soap thickened greases and hence its consistency changes only marginally with increasing temperature. In bearings operating at high temperature it resists softening and remains in place providing good sealing and continuous lubrication even in the presence of vibration. Grease 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

- **Operating Temperature**

A severe limitation in many high temperature greases is the type of organic metallic soap thickener. It can melt at high temperatures destroying the grease structure - greatly reducing its retention and lubrication properties. The special inorganic clay thickener contained in Shell Sealing

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- **Re-lubrication**

Grease life varies considerably from application to application even with bearings operating under nominally identical conditions. Variables such as air flow, dirt and humidity can have a considerable effect in addition to the more commonly recognised parameters of load, speed and temperature.

Predicted life is likely to be reduced significantly for less favourable conditions.

Recommendations should be tested on a trial basis and modified, where necessary, in the light of service experience.

Preferably, bearing housings should be designed to allow for complete purging during Re-lubrication. Alternatively, the bearing should be dismantled for periodic servicing and complete replacement of the grease charge.

- **Advice**

Advice on applications not covered here may be obtained from your Shell representative.