



Previous Name: Shell Stamina Grease RL 2

# Shell Gadus S3 T100 2

## Premium Multipurpose Grease

Shell Gadus S3 T100 Greases are high technology greases designed to give optimum performance for grease lubrication in industrial bearings. They are based on mineral oil with a special diurea thickener to give long life, low wear and shear-stable properties at high temperatures. In high temperature applications Shell Gadus S3 T100 Greases will outperform even fully synthetic (PAO) lithium complex greases proposed in the market.

- *Extra Protection*
- *Extreme Temperature*
- *Polyurea*

## DESIGNED TO MEET CHALLENGES

### Performance, Features & Benefits

- **Outstanding life at high temperatures**
- **Excellent wear protection**
- **Excellent mechanical stability at high temperatures**
- **Excellent oxidation resistance**
- **Good protection against false brinnelling**
- **Low oil separation**
- **Excellent corrosion resistance**

Provides protection from the elements of corrosion.

- **Versatile**
- **Water resistant**

Withstands washing with water, preventing loss of protection.

- **Lead and nitrite free**

For safe handling.

- **High temperature performance**

The diurea thickener used in Shell Gadus S3 T100 greases have a high melting point and the grease performance is limited only by the properties of the base oil and additive components.

- **Corrosion protection**

When a bearing is running, most high quality greases can maintain an adequate lubricating film even when the grease is loaded with water. However when the grease bearing is idle corrosion may occur causing pitting which can be destructive. Shell Gadus S3 T100 greases are formulated with corrosion inhibitors to help protect bearing surfaces even when the grease is contaminated with water.

The lubrication properties of Shell Gadus S3 T100 greases are unimpaired by small quantities of salt water.

- **Load carrying capacity**

Although not specifically designated extreme pressure, Shell Gadus S3 T100 greases have been used very successfully in slow moving, loaded large bearings such as those found in continuous casters in steel plants.

- **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. The use of Shell Gadus S3 T100 greases usually permits considerable extension of the re-lubrication interval.

- **Oxidation stability**

Shell Gadus S3 T100 greases have a superior high temperature oxidation inhibitor system to ensure that they will withstand high operating temperatures without forming deposits. Unlike the soap thickeners used in most greases, the diurea thickener in Shell Gadus S3 T100 greases does not catalyse grease oxidation, indeed the diurea thickener offers inherent anti-oxidant properties. This contributes to longer grease life at higher temperatures.

The base oil component of Shell Gadus S3 T100 greases is a specially selected high viscosity index mineral oil with excellent oxidation and evaporation resistance.

- **Water washout**

Shell Gadus S3 T100 greases exhibit very good resistance to water washout by immersion or spray.

## Main Applications



Shell Gadus S3 T100 greases are particularly recommended for use in high temperature (160°C), lightly loaded industrial bearings. It is recommended for use where long operational life and extended re-greasing intervals are an important consideration

## Specifications, Approvals & Recommendations

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

### Compatibility & Miscibility

#### • Sealing

The rheology of Shell Gadus S3 T100 greases is such that at low shear rates and with heating the consistency increases. Consequently, in bearings operating at high temperatures the grease remains in place providing good sealing and continuous lubrication even in the presence of vibration.

## Typical Physical Characteristics

Properties			Method	Shell Gadus S3 T100 2
NLGI Consistency				2
Colour				Light brown
Soap Type				Diurea
Base Oil (type)				Mineral Oil
Kinematic Viscosity	@40°C	mm <sup>2</sup> /s	IP 71 / ASTM D445	100
Kinematic Viscosity	@100°C	mm <sup>2</sup> /s	IP 71 / ASTM D445	11
Cone Penetration, Worked	@25°C	0.1mm	IP 50 / ASTM D217	265-295
Dropping Point			IP 396	250
Pumpability Long Distance				Fair

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 S3 T100 Greases 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 Material Safety Data Sheet, which can be obtained from <http://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 Range

-20°C to +160°C

With caution, Shell Gadus S3 T100 greases may, in some circumstances, be used at temperatures up to 180°C, but only if the re-lubrication period is suitably adjusted.

#### • Advice

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