



Previous Name: Shell Stamina RLS 2 (2006)

# Shell Gadus S5 T100 2

- Long Life
- Extreme Temperature
- Polyurea

## Advanced Multipurpose Grease

Shell Gadus S5 T100 greases are a very high technology grease designed to give optimum performance for grease lubrication in industrial bearings.

It based on synthetic oil with a special diurea thickener to give long life, low wear and shear-stable properties at high temperatures.

### DESIGNED TO MEET CHALLENGES

#### Performance, Features & Benefits

- Outstanding life at high temperatures
- Excellent wear protection
- Excellent mechanical stability at high temperatures
- Excellent oxidation resistance
- Low oil separation
- Excellent corrosion resistance  
Provides protection from the elements of corrosion.
- Versatile
- Water resistant  
withstands washing with water, preventing loss of protection.

#### Specifications, Approvals & Recommendations

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

#### Typical Physical Characteristics

Properties			Method	Shell Gadus S5 T100 2
NLGI Grade				2
Colour				Light brown
Soap Type				Polyurea
Base Oil (type)				Synthetic
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	14
Cone penetration, Worked	@25°C	0.1mm	IP 50 / ASTM D217	265-295
Dropping Point			IP 396	250
FAG FE-9 Test L50 hrs	@180°C	hours minimum		100
Pumpability Long Distance				Fair

#### Main Applications



Shell Gadus S5 T100 greases are particularly recommended for use in high temperature up to 180°C, lightly loaded industrial bearings. It is recommended for use where long operational life and extended re-greasing intervals are an important consideration

#### Compatibility & Miscibility

- **Sealing**  
The rheology of Shell Gadus S5 T100 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 resence of vibration.

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 S5 T100 2 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 / high temperature performance

The diurea thickener used in Shell Gadus S5 T100 has a high melting point and the grease performance is limited only by the properties of the base oil and additive components.

The low volatility and excellent oxidation stability of the base oil are such that they give an excellent service life in bearings operating between -40°C and +180°C.

With caution, Shell Gadus S5 T100 greases may, in some circumstances, be used at temperatures up to 200°C, but only if the re-lubrication period is suitably adjusted.

The lubrication properties of Shell Gadus S5 T100 are unimpaired by small quantities of salt water.

### • Oxidation stability

Shell Gadus S5 T100 has a superior high temperature oxidation inhibitor system to ensure that it will withstand high operating temperatures without forming deposits. Unlike the soap thickeners used in most greases, the diurea thickener in Shell Gadus S5 T100 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 part of Shell Gadus S5 T100 is a specially selected synthetic component with excellent oxidation and evaporation resistance.

### • Corrosion protection

When a bearing is running, most high quality greases can maintain an adequate lubricating film even when the grease is contaminated with water. However when the grease bearing is idle corrosion may occur causing pitting which can be detrimental. Shell Gadus S5 T100 is formulated with corrosion inhibitors to help protect bearing surfaces even when the grease is contaminated by water.

### • 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 S5 T100 usually permits considerable extension of the re-lubrication interval.

- **Water washout**

Shell Gadus S5 T100 exhibits very good resistance to water washout by immersion or spray.

- **Advice**

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