

# Shell Darina Grease R 2

Shell Darina Grease R 2, based on an inorganic non-soap thickener and a specially selected base oil, will provide satisfactory lubrication beyond the temperature limitations of lithium based greases.

The base oil component in Shell Darina Grease R 2 is a high quality, solvent refined, high viscosity mineral oil with excellent oxidation and evaporation resistance. Oxidation stability is also improved by the addition of a special high temperature oxidation inhibitor.

## Applications

Recommended for use in bearings operating in the temperature range -10°C to 180°C.

Shell Darina Grease R 2 gives good service life in many applications where expensive synthetic or silicone lubricants would otherwise be considered.

The special high viscosity base oil in Shell Darina Grease R 2 makes it particularly suitable for the grease lubrication of heavily loaded slow speed bearings.

With caution, Shell Darina Grease R 2 may be used at temperatures in excess of 200°C, but only so long as the Re-lubrication period is suitably adjusted.

## 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 Darina Grease R 2 is free from any melting limitation. It controls the vaporisation and oxidation stability of the base oil and helps to extend grease life and maximise working temperature.

## Sealing

Shell Darina Grease R 2 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.

## 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.

## Bearing Housing

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.

## Typical Physical Characteristics

Shell Darina Grease	R 2
<b>NLGI Consistency</b>	2
<b>Soap Type</b>	Inorganic (clay)
<b>Base Oil (type)</b>	Mineral
<b>Kinematic Viscosity</b> @ 40°C cSt 100°C cSt (IP 71)	492 32
<b>Cone Penetration</b> Worked @ 25°C 0.1 mm (IP 50/ASTM-D217)	265-295
<b>Dropping Point</b> °C (IP 132)	250

These characteristics are typical of current production. Whilst future production will conform to Shell's specification variations in these characteristics may occur.

## **Health & Safety**

Shell Darina Grease R 2 is unlikely to present any significant health or safety hazard when properly used in the recommended application, and good standards of industrial and personal hygiene are maintained.

For further guidance on Product Health & Safety refer to the appropriate Shell Product Safety Data Sheet.

## **Advice**

Advice on applications not covered in this leaflet may be obtained from your Shell Representative