

RPM Borate EP Lubricant

Extreme Pressure Gear Oil

Product Data Sheet



Premium performance, multipurpose automotive EP gear lubricant which is also suitable for many industrial applications. Contains a patented Borate EP additive system and supplemental anti-wear agent to provide wear protection characteristics which are far superior to conventional EP gear lubricants. Also containing oxidation, corrosion and foam inhibitors, it is a real "problem solver" for severe gear lubrication applications.

APPLICANTIONS

- Automotive differentials and gear cases operating under severe service conditions. Particularly recommended for off-highway and heavy-duty trucking fleets.
- Heavy-duty transmissions where the manufacturer recommends API GL-5 lubricants. May also be used in transmission
 applications where non-EP lubricants are normally recommended.
- Industrial enclosed gears operating under severe conditions, including steel-on-bronze worm gears
- · Drive and reduction gearboxes on mills, mixers, crushers, extruders, kilns, stenters, pumps and hoists

Not recommended for oil mist application or where excessive water contamination occurs.

BENEFITS

• Reduce operating costs

Borate additive system provides a thick, tenacious film which prevents metal-to-metal contact between sliding surfaces under severe conditions. The physical, rather than chemical, EP action of Borate minimises corrosion of ferrous and copper alloy components, even under high temperature conditions. Equipment maintenance is minimised and downtime is reduced.

• Maximise oil drain intervals

Outstanding thermal and oxidation stability reduces oil degradation, prolonging lubricant life.

• Save on fuel and power

Reduced frictional characteristics of the Borate additive and its high load carrying ability in lower viscosity grades frequently permit use of a lower viscosity grade than conventional gear oils. This results in reduced power loss, giving fuel savings in automotive applications and reduced power consumption in industrial applications.

• Reduce inventory costs

Ability to replace non-EP transmission lubricants can allow a single oil to be used in both transmissions and differentials, with reductions in lubricant inventory.

PERFORMANCE STANDARDS

| API | GL-5, GL-4 and GL-2 |
|---------------|-------------------------------------------------|
| U.S. Military | Specification MIL-L-2105D (SAE 80W-90, ISO 150) |





TYPICAL CHARACTERISTICS

| Product Code | 1340 | 1341 | 1342 | 1343 | 1345 |
|---------------------------------------------------------------------------|-------------|-------------|-------------|-------------|-----------|
| ISO Viscosity Grade | 150 | 220 | 320 | 460 | 680 |
| SAE Grade | 80W-90 | - | - | 85W-140 | - |
| Density at 15°C, kg/L | 0.910 | 0.915 | 0.920 | 0.921 | 0.936 |
| Flash Point, COC, °C | 250 | 252 | 254 | 256 | >200 |
| FZG, Load Stage Pass | 12+ | 12+ | 12+ | 12+ | 12+ |
| Pour Point, °C | -30 | -21 | -18 | -18 | -9 |
| Timken OK Load, kg | 36 | 36 | 32 | - | - |
| Viscosity, at 40°C, mm ² /s at 100°C, mm ² /s | 143 14.6 | 210 18.8 | 306 23.8 | 440 30.0 | 660 40 |
| Viscosity Index | 101 | 100 | 98 | 97 | 99 |

PACK SIZES

205L, 20L. ISO 460 is also available in 1000L. ISO 680 is not available in 205L.

SERVICE CONSIDERATIONS

Excessive in-service water contamination of RPM Borate EP Lubricant should be avoided. While it will continue to provide excellent wear protection under such conditions, shortened seal life may result. Water contamination may be amenable to reduction through operating or mechanical changes, for example the fitting of remote breather outlets to automotive rear axles. However, if excessive water contamination cannot be avoided, RPM Borate EP Lubricant is not recommended.

In industrial applications, it is suited to both splash and circulation application methods, but not to oil mist systems.

Not recommended for Spicer heavy duty manual transmissions.

ENVIRONMENT, HEALTH AND SAFETY

A Material Safety Data Sheet (MSDS) is available for each product. Users should consult the MSDS, follow the precautions outlined and comply with all laws and regulations concerning its use and disposal. Used packaging material should not be incinerated or exposed to flame. After use, protect your environment. Do not pollute drains, soil or water with used product.

Updated: 2 February 2015 RPM Borate EP Lubricant Page 2/3





OTHER INFORMATION

For further information on Caltex products and services call the Lubelink Advisory Service on 1300 364 169 between 8.00am and 6.00pm (EST) Monday to Friday.

Information in this publication is accurate at the time of printing and reasonable care has been taken to ensure it is complete and accurate. However, this information is subject to change (such as when formulations or usage and storage information changes). Please visit www.caltex.com.au for the latest product information. Independent advice should be sought before taking any action in reliance on the information in this publication, and Caltex Australia Limited and its related bodies corporate accept no liability for any reliance on this publication's content.

Updated: 2 February 2015 RPM Borate EP Lubricant Page 3/3