

SHELL MORLINA S4 B

ADVANCED BEARING AND CIRCULATING OILS

PREVIOUSLY SHELL OMALA RL

DESIGNED TO MEET CHALLENGES



Shell Morlina S4 B oils are high performance synthetic bearing and circulation lubricants, based on high performance base fluids. It offers outstanding lubrication performance under severe operating conditions, including improved energy efficiency and long service life even in severe operating conditions.

PERFORMANCE FEATURES

LONG OIL LIFE—MAINTENANCE SAVING

- n The use of highly stable synthetic base oils in conjunction with a robust rust and oxidation inhibitor package helps provide excellent oxidation and thermal stability. This provides Shell Morlina S4 B with extending maintenance capability compared to conventional oils.
- n In addition it helps resist the formation of harmful products of oxidation at high operating temperatures, to help maintain system cleanliness and therefore reliability of the equipment.

EXCELLENT WEAR AND CORROSION PROTECTION

- n Shell Morlina S4 B has been formulated to provide excellent anti-wear performance and provides high levels of wear protection for plain and rolling element bearings and moderately loaded gearboxes, compared to mineral oil-based products. This helps provide superior gear and bearing component life.
- n In addition it also provides outstanding rust and corrosion protection of all metal surfaces.

ENHANCING SYSTEM EFFICIENCY

- n Shell Morlina S4 B can help improve the efficiency of lubrication in bearing and circulating systems. The superior low temperature performance and reduced change in viscosity with increase in temperature in comparison to mineral oil-based. Products provide better lubrication at low start-up temperatures and the opportunity for energy.
- n Savings through reduced pumping and flow losses during normal operating conditions.
- n Rapid water shedding and air release properties further enhance the efficiency of the lubrication system by helping maintain critical oil films between loaded components.

APPLICATIONS

SEVERE OPERATING CONDITIONS

- n Shell Morlina S4 B is recommended for systems including moderately loaded gearboxes, operating under severe conditions such as low or high temperatures or with wide temperature variations.

LUBRICATED FOR LIFE SYSTEMS

- n The long oil life of Shell Morlina S4 B makes it suitable for use in certain 'lubricated-for-life' systems.

BEARING AND CIRCULATING OIL SYSTEMS

- n Suitable for use in systems containing plain or rolling element bearings, including those highly loaded bearings found in cement or quarrying applications.

SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

MEETS THE REQUIREMENTS OF:

- n ISO 12925-1 Type CKS specification
- n Alfa Laval Group D gearbox applications
- n Aerzen Maschinenfabrik GmbH Blower applications
- n Baltimore Aircoil Gear Boxes
- n Cincinnati Machine Various P applications
- n David Brown Table H applications
- n Emerson Power Transmission
- n GEA Westfalia Separator GmbH
- n Renold Gears (various applications)
- n Sharpe E-series worm gear reducers
- n Winsmith (Peerless-Winsmith Inc) Worm gear reducer.

SEAL AND PAINT COMPATIBILITY

- n Shell Morlina S4 B is compatible with all seal materials and paints normally specified for use with mineral oils.

CHANGE OVER PROCEDURE

- n Shell Morlina S4 B is compatible with petroleum mineral oils and no special change-over procedure is necessary. However, to realise the full benefits, it should not be mixed with other oils.
- n It is also advisable to ensure that oil systems are clean and free from contamination to optimise potential service life.

TYPICAL PHYSICAL CHARACTERISTICS

CHARACTERISTICS	150	220
Kinematic Viscosity (ISO 3104)		
@ 40°C mm ² /s	150	220
@ 100°C mm ² /s	19.8	25.9
Viscosity Index (ISO 2909)	149	149
Density @ 15°C kg/m ³ (ISO 12185)	846	848
Flash Point °C (COC) (ISO 2592)	236	240
Pour Point °C (ISO 3016)	-54	-48
Emulsion Test, mins. (ASTM D 1401)	15	15
Foam Test, Seq II (ml foam at 0/10 mins.) (ASTM D 892)	0/0	0/0
FZG Load Carrying Test DIN 51354-2 A/8.3/90 – Failure load stage	>12	>12