

SHELL OMALA S4 GX

ADVANCED SYNTHETIC INDUSTRIAL GEAR OIL

PREVIOUSLY SHELL OMALA HD

DESIGNED TO MEET CHALLENGES



Shell Omala S4 GX is an advanced synthetic heavy-duty industrial gear oil offering outstanding lubrication performance under severe operating conditions, including reduced friction, long service life and high resistance to micro-pitting for optimal gear protection.

PERFORMANCE FEATURES

LONG OIL LIFE – MAINTENANCE SAVING

- n Shell Omala S4 GX is formulated using an advanced additive system in combination with specially selected synthetic base fluids to provide outstanding resistance to breakdown over long duration and/or high temperature operation.
- n This performance is recognised by Flender AG where a formal approval for 20,000 hours (four years) at 80 °C usage has been granted.
- n Shell Omala S4 GX can operate successfully at bulk temperatures up to 120 °C.
- n Shell Omala S4 GX offers the potential to significantly extend service intervals compared to conventional industrial gear oils.

EXCELLENT WEAR AND CORROSION PROTECTION

- n Shell Omala S4 GX is formulated to have excellent load carrying capacity and micro-pitting performance providing long component life even under shock loading conditions. These features provide benefits over mineral oil-based products in terms of gear and bearing component life.
- n Shell Omala S4 GX also has excellent corrosion protection, even in the presence of contamination by water and solids.

MAINTAINING SYSTEM EFFICIENCY

- n Shell Omala S4 GX can help maintain or enhance the efficiency of industrial gear systems through improved low temperature performance and lower friction in comparison to mineral oil-based products. This provides better lubrication at low start-up temperatures.
- n Shell Omala S4 GX oils have excellent water separation properties, such that excess water can be drained easily from lubrication systems to help extend the life of the gears and ensure efficient lubrication of the contact areas.

APPLICATIONS

WIND TURBINES AND OTHER INACCESSIBLE INSTALLATIONS

- n Shell Omala S4 GX is particularly recommended for certain systems where extra long life is required, maintenance is infrequent or systems are inaccessible.

ENCLOSED INDUSTRIAL GEAR SYSTEMS

- n Recommended for industrial reduction gear systems operating under severe operating conditions, such as high load, very low or elevated temperatures and wide temperature variations.

OTHER APPLICATIONS

- n Shell Omala S4 GX oils are suitable for lubrication of bearings and other components in circulating and splash-lubricated systems.
- n For highly loaded worm drives the Shell Omala S4 WE series oils are recommended.
- n For automotive hypoid gears, the appropriate Shell Spirax Oil should be used.

COMPATIBILITY AND MISCIBILITY

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

SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

MEETS THE REQUIREMENTS OF:

- n ISO 12925-1 Type CKD (except ISO 1000)
- n ANSI/AGMA 9005-E02 (EP) (except ISO 1000)
- n US Steel 224 (except ISO 1000)
- n David Brown S1.53.106 (except ISO 1000)
- n DIN 51517-3 (CLP) (except ISO 1000).

APPROVED BY:

- n Flender AG.

APPROVED FOR WIND TURBINE GEARBOXES BY:

- n Gamesa
- n Dongfang Wind Turbines
- n Dalian Heavy Industries
- n Sinovel.

TYPICAL PHYSICAL CHARACTERISTICS

| CHARACTERISTICS | 220 | 320 | 460 | 680 |
|---|------|------|-------|-------|
| Kinematic Viscosity (ISO 3104) | | | | |
| @ 40°C mm ² /s | 230 | 335 | 462.6 | 670.4 |
| @ 100°C mm ² /s | 30.0 | 40.0 | 50.0 | 64.9 |
| Viscosity Index (ISO 2909) | 160 | 159 | 170 | 169 |
| Density @ 15°C kg/m ³ (ISO 12185) | 881 | 883 | 879 | 881 |
| Flash Point °C (COC) (ISO 2592) | 250 | 252 | 264 | 256 |
| Pour Point °C (ISO 3016) | -45 | -42 | -36 | -33 |
| FZG Load Carrying Test (DIN 51354-2 A/8.3/90 A/16, 6/90) – Failure load stage | >14 | >14 | >14 | >14 |
| Timken OK Load lbs (ASTM D 2782) | >85 | >85 | >85 | >85 |