

SHELL CORENA S4 P

ADVANCED SYNTHETIC RECIPROCATING (PISTON) AIR COMPRESSOR OIL

PREVIOUSLY SHELL CORENA AP

DESIGNED TO MEET CHALLENGES

Shell Corena S4 P is an advanced reciprocating air compressor lubricant and is based on specially selected synthetic ester fluids. It incorporates the latest additive technology to provide outstanding performance.

PERFORMANCE FEATURES

LONG OIL LIFE—MAINTENANCE SAVING

- n Developed specifically for heavy-duty reciprocating air compressors. This includes reciprocating air compressors subjected to overloading, intermittent or continuous operation. Shell Corena S4 P is designed to provide safe, reliable and effective lubrication for extended service periods where mineral compressor lubricants are unsatisfactory.
- n The extreme low tendency for deposit build-up ensures continued high compressor performance over long periods. It enables the normal valve maintenance period, typically between 250 and 1,000 hours of operation using conventional mineral oils, to be extended to 2,000, or even 4,000 hours.

ENHANCED AIR-LINE SAFETY

- n The absence of deposit formation has a very important safety related benefit. In discharge air-lines, the combination of rust particles, dispersed in carbonaceous deposits, coupled with heat from recently compressed air, can cause an exothermic reaction leading to the possibility of fires and explosion. Shell Corena S4 P helps to minimise the likelihood of this danger arising.

OUTSTANDING WEAR PROTECTION

- n Effectively protects all metal surfaces from corrosion. Protects all sensitive machinery parts (e.g. gears, screws, bearings, from wear to help and prolong the service intervals).

MAINTAINING SYSTEM EFFICIENCY

- n Resistant to the formation of carbon deposits and lacquer on valves and piston crowns, caused by the by-products of corrosion such as ferric oxides and hydroxides, at high working temperatures and pressures. Such deposits can cause serious damage, lower compressor efficiency and increase maintenance costs.
- n Separates readily from water preventing accelerated corrosion and facilitating separation from condensate.

APPLICATIONS

RECIPROCATING AIR COMPRESSORS

- n All industrial reciprocating air compressors, in particular up to and above air discharge temperatures of 220°C with continuous high delivery pressures.

BREATHING AIR COMPRESSORS

- n Shell Corena S4 P may be used in breathing air compressors, provided subsidiary clean-up apparatus is used to ensure that the air produced is fit for breathing.

COMPATIBILITY AND MISCIBILITY

SEAL COMPATIBILITY

- n Shell Corena S4 P, in common with other ester-based lubricants, is not compatible with all seal materials, and some older compressors may need to have the seals changed before they can be run on the new grades.

MISCIBILITY

- n Shell Corena S4 P oils are fully miscible with mineral oils, although dilution with mineral lubricants will markedly reduce its performance.

COMPATIBILITY GUIDE

Acceptable	High nitrile content (SE85)	>36% acrylonitrile
Majority Acceptable	Medium nitrile content (SE70)	30–36% acrylonitrile
Not Acceptable	Low nitrile content	<30% acrylonitrile

SPECIFICATIONS, APPROVALS AND RECOMMENDATIONS

- n DIN 51506 VDL
- n ISO/DP 6521-L-DAB – medium duty
- n ISO 6743-3:2003 DAB – severe duty
- n EN 12021.

TYPICAL PHYSICAL CHARACTERISTICS

CHARACTERISTICS	68	100
Kinematic Viscosity (ASTM D 445)		
@ 40°C mm ² /s	68	100
@ 100°C mm ² /s	8.5	10.2
Density @ 15°C kg/m ³ (ASTM D 445)	990	988
Flash Point °C (COC) (ASTM D 92)	250	260
Pour Point °C (ASTM D 97)	–51	–39
Sulphated Ash %m (DIN 51575)	<0.02	0.02
Rust Prevention Properties (24 hours)	Pass	Pass
Copper Corrosion (100°C / 3 hours) (ASTM D 130)	1b	1b
Water Separability (ASTM D 1401)	@ 54°C min. @ 82°C min.	30 – – 25