Technical Data Sheet

Shell Corena Oils S

Lubricant for rotary screw and vane air compressors

Shell Corena S is a premium quality lubricant developed for the lubrication of rotary sliding vane and screw air compressors. It is based on a blend of selected severely hydroprocessed base oils and carefully chosen additives.

Applications

- ***Rotary sliding vane air compressors***
  Oil-flooded or oil-injected, single or two-stage compressors, operating at pressures of up to 10 bar and with air discharge temperatures of up to 100°C.
- ***Screw air compressors***
  Oil flooded or oil injected, single or two-stage compressors, operating at pressures of up to 20 bar and with air discharge temperatures of up to 100°C.

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

Performance Features and Benefits

- **Very good thermal stability**

Corena S reduces sludge and deposit formation from the thermal degradation processes, even at very high temperatures, maintaining compressor efficiency.

- **Very good water shedding properties**

The product is easily separated from water, keeping the system in good condition even when contaminated with water.

- **Very good oil oxidation resistance**

Corena S resists formation of carbon deposits in sliding vane slots, enabling them to move freely. It also resists deposit formation on rotating components of screw compressors. As a consequence, high levels of compressor efficiency can be maintained for long periods in both types of compressor.

- **Very good air release and anti-foam properties**

The careful selection of base oils and additives provides rapid air release without excessive foaming to give trouble-free operation even under cycling conditions.

- **Very good rusting and wear protection**

Effectively protects all metal surfaces from corrosion. Protects all sensitive machinery parts, e.g. gears, screws, bearings, from wear and prolongs the service intervals.

- **Internal cleanliness**

Coupled with the oil's long life capability is its ability to maintain internal surface cleanliness in service. This is important to maintain high levels of performance for the compressor and separator/coalescer.

- **Oil drain periods**

Corena S will allow for significant increases in oil drain intervals, where allowed by manufacturers - up to a maximum of 6000 hrs, even when operating at a continuous maximum discharge air temperature of up to 100°C. Depending on intake air quality, duty cycle and ambient conditions, especially hot and humid type climates as found in the Asian and Pacific regions, a reduced oil drain period is recommended.

Specifications and Approvals

Shell Corena S meets the requirements of:
ISO 6743-3A-DAH and DAJ

Compatibility

Corena S is compatible with all sealing materials commonly used in air compressors

Health & Safety

Guidance on Health and Safety are available on the appropriate Material Safety Data Sheet, which can be obtained from your Shell representative.

Protect the environment

Take used oil to an authorised collection point. Do not discharge into drains, soil or water

Typical Physical Characteristics

Corena S			**32**	**46**	**68**	**100**
ISO Viscosity Grade		ISO 3448	32	46	68	100
Kinematic viscosity		ASTM D445				
at 40°C	mm^2/s		32	46	68	100
at 100°C	mm^2/s		5.4	6.9	8.9	11.5
Density at 15°C	kg/m^3	ASTM D1298	864	868	873	875
Flash point (COC)	°C	ASTM D92	218	230	248	260
Pour point	°C	ASTM D97	-30	-30	-30	-24
Water separability	min	ASTM D1401				
at 54 °C	min		15	15	15	-
at 82 °C	min		-	-	-	10

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