

# Shell Corena Oil D

## Lubricant for rotary screw and vane air compressors



Shell Corena D is a premium quality lubricant with detergent properties developed for the lubrication of rotary sliding vane and screw air compressors. It is based on a blend of selected solvent refined base oils and carefully chosen additives.

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### Applications

- **Rotary sliding vane air compressors**  
Oil flooded or oil injected air compressors.
- **Screw air compressors**  
Oil flooded or oil injected air compressors, operating at up to 15 bar and 100 °C air discharge temperatures. Machines running in mobile equipment, e.g. construction sites, railways, particularly in severe environments.
- **Rotary vacuum pumps**  
Corena D may be used in applications such as rotary and sliding vane vacuum pumps. For high vacuum pressures approaching  $1 \times 10^{-3}$  mbar it is suggested that Shell Corena Oil V be used.

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

### Performance Features and Advantages

- **Very good internal cleanliness**  
Coupled with the oil's long life capability is its ability to maintain excellent internal surface cleanliness in service, even in machines running under severe environmental conditions. This is important to maintain high levels of performance for the compressor and separator/coalescer.
- **Very good oil oxidation resistance**  
Resists formation of deposits of carbon in sliding vane slots, enabling them to move freely. Also resists deposit formation on rotating components of screw compressors. As a consequence, high levels of compressors efficiency can be maintained for throughout the normal drain period.
- **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.

- **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.  
Despite the fact that Corena D has detergent properties it does not form stable emulsions in oil/air separators and dryer units.
- **Oil drain periods**  
Corena D will allow the oil drain period, where allowed by manufacturers, to be extended up to 4000 hours, 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.

### Specification and Approvals

ISO 6743-3A-DAH

Corena D is known and used by major OEMs throughout the world.

### Seal compatibility

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

### Health and 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 D			32	46	68	100	150
ISO Viscosity Grade		ISO 3448	32	46	68	100	150
Kinematic viscosity		ASTM D445					
at 40 °C	mm <sup>2</sup> /s		32	46	68	100	150
at 100 °C	mm <sup>2</sup> /s		5,5	6,9	8,9	11,5	14,5
Density at 15 °C	kg/m <sup>3</sup>	ASTM D1298	870	875	880	884	890
Flash point COC	°C	ASTM D92	210	230	240	240	240
Pour point	°C	ASTM D97	-36	-33	-30	-24	-24
Ash, sulphated	%	DIN 51575	0,43	0,43	0,43	-	-
Oxidation stability (delta-CCT)	%	DIN 51352-1	0,45	0,45	0,45	-	-
Water separability		ASTM D 1401					
at 54 °C	min		15	20	25	-	-
at 82 °C	min		-	-	-	15	20

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