# Mobil Rarus™ 400 Series

Mobil Industrial , South Korea

Air Compressor Lubricants

## Product Description

The Mobil Rarus™ 400 Series is a line of premium performance ashless air compressor lubricants designed to meet the stringent requirements of the major compressor manufacturers. They are formulated with high quality mineral base-oils and a high performance additive system designed to provide exceptional equipment protection and reliability for compressors operating under mild to severe conditions. They provide excellent wear protection and the ability to reduce maintenance costs through minimising equipment problems and downstream deposits and carryover. Because of their high FZG Ratings, the Mobil Rarus 400 Series make outstanding lubricants for compressor systems employing gears and bearings making them an excellent selection for crankcases as well as cylinder lubricants.

## Features and Benefits

The use of the Mobil Rarus 400 Series oils can result in cleaner compressors and lower deposits compared to conventional mineral oils, resulting in longer running periods between maintenance intervals. Their excellent oxidation and thermal stability safely allow extended life capability while controlling sludge and deposit formation. They possess outstanding anti-wear and corrosion protection, which enhances equipment life and performance.

| Features | Advantages and Potential Benefits |
|---|---|
| Low Ash and Carbon Formation | Improved valve performance<br>Reduced deposits in discharge lines<br>Reduced potential for fires and explosions in discharge systems<br>Improved compressor performance |
| Outstanding Oxidation and Thermal Stability | Longer oil life<br>Improved filter life<br>Lower maintenance costs |
| High Load-carrying ability | Reduced wear of rings, cylinders, bearings and gears |
| Excellent Water Separability | Less carryover to downstream equipment<br>Reduced sludge formation in crankcases and discharge lines<br>Reduced blockage of coalescers<br>Less potential for emulsion formation |
| Effective Rust and Corrosion Protection | Improved protection of valves and reduced wear of rings and cylinders |

## Applications

The Mobil Rarus 400 Series oils are recommended for single and multistage air compressors. They are particularly effective for continuous high temperature operation. The maximum compressed air temperature, according to DIN 51506, is 220 °C. They are suitable for reciprocating and rotary type machines with the lower viscosity grades mainly used in rotary compressors. Rarus 400 Series oils are recommended for units with a history of excess oil degradation, poor valve performance or deposit formation. They are compatible with all metals used in compressor construction and with mineral-oil compatible elastomers used in seals, O-rings and gaskets.

Mobil Rarus 400 Series oils are not intended or recommended for use in air compressors for breathing applications.

The following types of compressors have shown excellent performance with the Mobil Rarus 400 Series oils:

- Reciprocating air compressor crankcases and cylinders
- Rotary screw compressors
- Rotary vane compressors
- Axial and centrifugal compressors
- Compressor systems with critical gears and bearings
- Compressors used in stationary and mobile applications

### Specifications and Approvals

| This product meets or exceeds the requirements of: | 424 | 425 | 426 | 427 | 429 |
|---|---|---|---|---|---|
| DIN 51506:1985-09 VDL | X | X | X | X | X |

### Properties and Specifications

| Property | 424 | 425 | 426 | 427 | 429 |
|---|---|---|---|---|---|
| Grade | ISO 32 | ISO 46 | ISO 68 | ISO 100 | ISO 150 |
| Ash, Sulfated, mass%, ASTM D874 | ‹0.01 | <0.01 | <0.01 | <0.01 | <0.01 |
| Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130 | 1B | 1B | 1A | 1B | 1A |
| Density @ 15 C, kg/l, ASTM D1298 | 0.866 | 0.873 | 0.877 | 0.879 | 0.866 |
| FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1 | 12 | 11 | 12 | 11 | 11 |
| Flash Point, Cleveland Open Cup, °C, ASTM D92 | 236 | 238 | 251 | 264 | 269 |
| Foam, Sequence I, Stability, ml, ASTM D892 | 0 | 0 | 0 | 0 | 20 |
| Foam, Sequence I, Tendency, ml, ASTM D892 | 10 | 20 | 0 | 30 | 430 |
| Kinematic Viscosity @ 100 C, mm2/s, ASTM D445 | 5.4 | 6.9 | 8.9 | 11.6 | 14.7 |
| Kinematic Viscosity @ 40 C, mm2/s, ASTM D445 | 32 | 46 | 68 | 104.6 | 147.3 |
| Rust Characteristics, Procedure A, ASTM D665 | | | PASS | PASS | PASS |
| Rust Characteristics, Procedure B, Rating, ASTM D665 | PASS | PASS | PASS | | |
| Rust Prevention, Procedure B, Rating, ASTM D665 | | | | PASS | PASS |
| Viscosity Index, ASTM D2270 | 105 | 105 | 105 | 100 | 100 |

### Health and Safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit www.exxonmobil.com

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