

PETRONAS COMPRESSOR R SYN POE SERIES

Supreme Performance (POE) Industrial Refrigeration Compressor Oil

PETRONAS Compressor R SYN POE Series are supreme performance compressor oils specially developed for use in refrigeration and air-conditioning compressors using HFC refrigerants. Formulated with high viscosity index Polyol Ester (POE) synthetic base oils enhanced with advanced pour point depressant, anti-oxidant, anti-rust and anti-foam additives, PETRONAS Compressor R SYN POE oils provide excellent varnish and deposits control, very low pour point and excellent thermal and oxidation stability for up to 5x longer lasting performance vs conventional mineral refrigeration compressor oils.

PETRONAS Compressor R SYN POE Series meets or exceeds key industrial specifications.

Applications

PETRONAS Compressor R SYN POE Series are recommended for use in:

- refrigeration and air-conditioning compressors using HFC refrigerants
- household refrigerators and freezers using HFC refrigerants

Features and Benefits

| Features | Benefits |
|---|--|
| Excellent varnish and deposits control | Maintains excellent internal surface cleanliness, controls varnish formation providing longer equipment life |
| Excellent thermal and oxidation stability | Maintains performance levels under high temperatures and pressure, enabling long oil drain intervals |
| Very low pour point | Avoids deposits formation in the evaporator |
| Excellent Low Volatility | Reduces maintenance and oil consumption |
| Excellent rust & corrosion protection | Inhibits the corrosion process that occurs in presence of water, improving equipment life |
| Very good anti-wear protection | Protects equipment components from excessive wear and provides longer equipment life |
| High multi metal compatibility | Compatible with most metal alloys ensuring trouble free performance of the system |

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Typical Properties

| Characteristic | Method | Specification | 22 | 32 | 46 | 68 |
|---|------------|---------------|-------|-------|-------|-------|
| Specific Gravity @ 15 °C | ASTM D4052 | (1) | 0,998 | 0,984 | 0,991 | 0,981 |
| Kinematic Viscosity at 40°C, cSt | ASTM D445 | (1) | 22 | 32 | 46 | 68 |
| Kinematic Viscosity at 100°C, cSt | ASTM D445 | (1) | 4,6 | 5,9 | 7,3 | 9,6 |
| Viscosity Index, min | ASTM D2270 | (1) | 127 | 130 | 121 | 121 |
| Flash Point | ASTM D92 | (1) | 260 | 260 | 260 | 270 |
| Pour Point, max °C | ASTM D97 | (1) | -57 | -54 | -48 | -39 |
| TAN, mgKOH/g | ASTM D664 | (1) | 0,02 | 0,02 | 0,02 | 0,02 |
| Miscibility (Low °C) 10% Lube in R134a | - | (1) | -43 | -43 | -34 | -26 |
| Miscibility (High °C) 10% Lube in R134a | - | (1) | >80 | >80 | >80 | >80 |
| Hydroxyl Value, mgKOH/g | ASTM E326 | (1) | 4 | 4 | 4 | 4 |
| Characteristic | Method | Specification | 100 | 170* | 220 | |
| Specific Gravity @ 15 °C | ASTM D4052 | (1) | 0,973 | 0,972 | 0,979 | |
| Kinematic Viscosity at 40°C, cSt | ASTM D445 | (1) | 100 | 162,2 | 220 | |
| Kinematic Viscosity at 100°C, cSt | ASTM D445 | (1) | 11,6 | 16,66 | 20,1 | |
| Viscosity Index, min | ASTM D2270 | (1) | 104 | 109 | 105 | |
| Flash Point | ASTM D92 | (1) | 265 | 295 | 287 | |
| Pour Point, max °C | ASTM D97 | (1) | -33 | -34 | -25 | |
| TAN, mgKOH/g | ASTM D664 | (1) | 0,02 | 0,03 | 0,02 | |
| Miscibility (Low °C) 10% Lube in R134a | - | (1) | -28 | ** | -18 | |
| Miscibility (High °C) 10% Lube in R134a | - | (1) | >80 | ** | >80 | |
| Hydroxyl Value, mgKOH/g | ASTM E326 | (1) | 4 | - | 4 | |

All technical data are provided for reference only / (1): not required in specification / SS is available upon request including quality control limits

*Not follow ISO VG

**Immiscible

Performance Levels

- ISO 6743-3: DRD

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Health, Safety and Environment

This product is unlikely to present any significant health and safety hazards when used in the recommended application. Avoid contact with skin. Wash immediately with soap and water after skin contact. Do not discharge into drains, soil or water.

For further detail regarding storage, safe handling, and disposal of product, please refer to product SDS or contact us at: www.pli-petronas.com.

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