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## PRODUCT TECHNICAL DATASHEET

# POE 32

ERRECOM | Supplied by Raj Tech

Product enquiries, availability and bulk orders

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**Original manufacturer technical pages follow.**

Specifications and manufacturer attribution are preserved.



## Description

ERRECOM's POE 32 is formulated with high-performance additives that provide the polyester base with high thermal, chemical, and hydrolytic stability. Due to its high viscosity index, POE 32 has excellent cold flow properties and a highly stable lubricating film under high temperature conditions.

Like all Errecom's POEs, POE 32 is ultra-dry and, as a result, its hygroscopicity is drastically reduced. POEs, in fact, tend to easily absorb atmospheric moisture, much faster than non-polar hydrocarbon-based refrigeration lubricants such as mineral oil, alkylbenzene and PAO. In extreme cases, i.e. when they absorb a certain amount of water (over 50-100 ppm) and are working under particularly extreme operating conditions, hydrolytic decomposition reactions may occur [Figure 1]. For this reason, it is necessary to avoid contact with water or moisture during storage, handling, or operation. Precisely for this reason, all Errecom's POEs are packaged in plastic bottles and metal tanks that have been specially designed to protect oils against moisture.

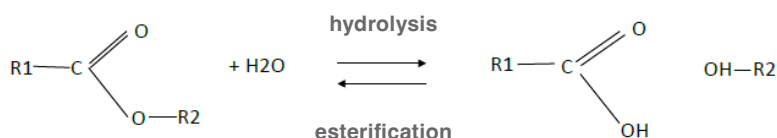


Figure 1: Hydrolysis of POE

## Field of Application

HVAC/R (refrigeration lubricant for hermetic, semi-hermetic, open, and screw compressors, and turbochargers).

## Features – Pluses

| Features                                           | Pluses                                                                                          |
|----------------------------------------------------|-------------------------------------------------------------------------------------------------|
| High viscosity index                               | Ensures excellent low temperature fluidity, no oily deposits and improved evaporator efficiency |
| Anti-wear additive                                 | Ensures reduced compressor wear and maintenance costs                                           |
| Excellent high temperature stability               | Ensures cleaner evaporators, and reduced downtime and maintenance costs                         |
| Optimised miscibility with HFC - HFO - Hydrocarbon | Ensures high system efficiency and correct oil return in refrigeration systems                  |

## Instructions

Recommended operating temperature: 20°C-25°C.  
Viscosity increases as temperature decreases.

## Physical and Chemical Properties

| Physical Quantity (Unit of Measurement) | Analytical Method | POE 32 |
|-----------------------------------------|-------------------|--------|
| ISO VG                                  | /                 | 32     |
| Kinematic Viscosity at 40°C (cSt)       | ASTM-D445         | 32     |
| Kinematic Viscosity at 100°C (cSt)      | ASTM-D445         | 5,5    |
| Viscosity Index                         | ASTM-D2270        | 140    |
| Pour Point (°C)                         | ASTM-D97          | -50    |
| Flash Point (°C)                        | ASTM-D93          | 230    |
| Density at 15°C (g/cm <sup>3</sup> )    | ASTM-D1298        | 0,955  |
| Moisture Level (ppm)                    | ASTM-D6304        | 50     |
| Total Acid (mg KOH/g)                   | ASTM-D974         | < 0,03 |

## Refrigerant Gas Compatibility

Errecom's POE 32 is compatible with the following refrigerant gases:

- HFC: R134a, R404A, R507, R410A, R407C
- HFO: R1234yf, R1234ze
- Hydrocarbons: R290, R1270
- new refrigerants developed to replace R22: R422A/D, R417A

## Product Compliance

POE 32 complies with the following European standards:

- Regulation (EC) No. 1907/2006 – REACH and next updates and reviews
- Regulation (EC) No. 1272/2008 – CLP and next updates and reviews
- Directive 2011/65/EC (formerly 2002/95/EC) - RoHS, and next updates - including Delegated Directive (EU) No. 2015/863

In addition, POE 32 complies with the following FDA 21 CFR sections and, therefore, can be used in different applications where there may be a risk of accidental contact with food:



Indirect Food Additives: Adjuvants, production aids and sanitizers  
Subpart D Certain adjuvants and production aids  
178.3570 – Lubricants with incidental food contact

## Categorisation and Labelling

This technical specification is only applicable when it comes with the current Safety Data Sheet. In accordance with legal requirements, only the Safety Data Sheet contains current safety information.

## Safety Instructions

Keep the container tightly closed. Keep away from heat, hot surfaces, sparks, open flames, or other ignition sources. Read the label and the MSDS before use. The MSDS is available on request.

## Chemical substance inventory

POE 32 is recorded in the following chemical inventories:

| REACH | KECL  | IECSC | NCI     | TCSI   | NZIOC       |
|-------|-------|-------|---------|--------|-------------|
| EU    | Korea | China | Vietnam | Taiwan | New Zealand |

## Storage Instructions

Store below 20°C. Keep away from open flame, heat, or direct sunlight. Store in a dry and cool place. Never expose to temperatures above 50°C.

## Transport Conditions

This product is not regulated for transport according to ADR/RID, IMDG, ICAO/IATA.

## Packaging

| Art.-Nr.     | Qty    |    |      | Packaging    |
|--------------|--------|----|------|--------------|
| OL6012.Q.P2  | 250 mL | 24 | 2880 | Plastic Tank |
| OL6012.M.P2  | 500 mL | 12 | 1080 |              |
| OL6012.K.P2  | 1 L    | 12 | 756  |              |
| OL6012.UP.P2 | 1 Gal  | 02 | 196  |              |
| OL6012.I.P2  | 4 L    | 02 | 196  |              |
| OL6012.P.P2  | 5 L    | 02 | 140  |              |
| OL6012.K.01  | 1 L    | 12 | 768  | Metal Tank   |
| OL6012.P.01  | 5 L    | 02 | 190  |              |
| OL6012.UV    | 5 Gal  | 01 | 24   |              |
| OL6012.V     | 20 L   | 01 | 24   |              |
| OL6012.T     | 25 L   | 01 | 24   | IBC          |
| OL6012.B     | 200 L  | 01 | 02   |              |
| OL6012.IBC   | 1000 L | 01 | 01   |              |



## Shelf life

5 years from the production date.

After this period, the product may still be used subject to successful checks on the performance requirements.