



# POE Lubricants

## Lubricants for A/C and Refrigeration Systems

### Polyol Esteri POE

POE are synthetic lubricants with high chemical and thermal stability.

Due to their good miscibility with refrigerants they are the best choice for applications with HFC/FC such as R134a, R404A, R407C. POE oils are also compatible with hydrocarbons such as R290 propane and R1270 propylene. In addition, our additive offer is always evolving: POE Errecom is also the best solution for applications with new generation HFO (hydrogenation of fluorinated olefins) such as R1234yf and R1234ze, which are both low-GWP latest formulation gases.

The high viscosity index ensures excellent low-temperature flowability and a stable film at high temperatures, thus confirming the maximum efficiency in all operating conditions.

The pursued aims in the development of new ERRECOM lubricants are:

- Excellent lubricant ability;
- Hydrolytic stability;
- High compatibility with the materials of all kind of systems, both new and old ones (with a constant attention to their evolution over the time);
- Excellent properties at low temperature;
- Electrical isolation;
- Low toxicity and high biodegradability level, always following our green philosophy precepts;
- Reduced hygroscopicity and anti-humidity additive;
- High thermal stability to oxidation;
- High solubility performances with refrigerants;
- Optimal miscibility with refrigerants.

Errecom experience in the development of versatile or customizable additive packages and the use of the most innovative and environmentally friendly raw materials have led to one of the best lubricants for refrigeration now on the market.

Errecom POE synthetic lubricants, in all their viscosity indices, are composed of a mixture of esters of polyols and additives specifically formulated for a better lubricity, chemical and thermal stability and excellent anti-wear protection of the AC/R system components.

Thanks to the research and the complete removal of polymerization catalysts, Errecom POE is one of the more stable and less reactive products within a system with POE.

Method and reference unit	POE 22	POE 32	POE 46	POE 55	Reference Method
ISO VG	22	32	46	55	
Kinematic viscosity @ 40°C (cSt)	22	32	46	55	ASTM-D445
Kinematic viscosity @ 100°C (cSt)	4,1	5,3	7,3	7,9	ASTM-D445
Kinematic index	82	94	93	93	ASTM-D2270
Pour point (°C)	-54	-48	-45	-42	ASTM-D 97
Flash point (°C)	198	215	235	245	ASTM-D 92
Density @ 15°C (g/cm³)	0,935	0,938	0,939	0,940	ASTM-D4052
Humidity content (ppm)	24	23	21	21	ASTM-E1064
Total acidity (mg KOH/g)	<0,03	<0,02	<0,02	<0,02	ASTM-D 974
Color (APHA)	22	20	20	25	ASTM-D1209
Reaction catalyst residue (ppm)	<0,02	<0,02	<0,02	<0,02	IM

Method and reference unit	POE 68	POE 100	POE 170	Reference Method
ISO VG	68	100	170	
Kinematic viscosity @ 40°C (cSt)	68	100	170	ASTM-D445
Kinematic viscosity @ 100°C (cSt)	8,5	11,9	16,3	ASTM-D445
Kinematic index	90	108	101	ASTM-D2270
Pour point (°C)	-39	-42	-33	ASTM-D 97
Flash point (°C)	255	270	280	ASTM-D 92
Density @ 15°C (g/cm³)	0,941	0,975	0,971	ASTM-D4052
Humidity content (ppm)	23	22	22	ASTM-E1064
Total acidity (mg KOH/g)	<0,02	<0,02	<0,02	ASTM-D 974
Color (APHA)	30	99	99	ASTM-D1209
Reaction catalyst residue (ppm)	<0,02	<0,02	<0,02	IM

It is suggested a dosage as close as possible to the quantity needed. For the biggest formats, it is recommended to quickly close the container and keep it in a cool and dry place in order to avoid the formation of moisture.

Keep the product between -40°C and +60°C.

Do not expose to sunlight.