



POE 32 Lubricant for R32

Lubricant for AC/R systems with R32

R32 POE 32 Synthetic Lubricant by Errecom is composed by a mix of NEW Polyol Esters and Additives which have been specifically formulated for a better lubrication, chemical and thermal stability and an excellent antiwear protection of all the components of AC/R Systems working with R32 (Refrigerant with low GWP level). The new Lubricant has not been developed to obtain the best performances with HFO R1234ze and yf Refrigerants as well as with HFC and HFO R452B, R448A mixtures, but it also increases the performances of HFC refrigerants such as R134a, R407C, R410A, and R404A. By optimizing the miscibility, we obtained an increase in terms of heat exchange even in the low temperature zone.

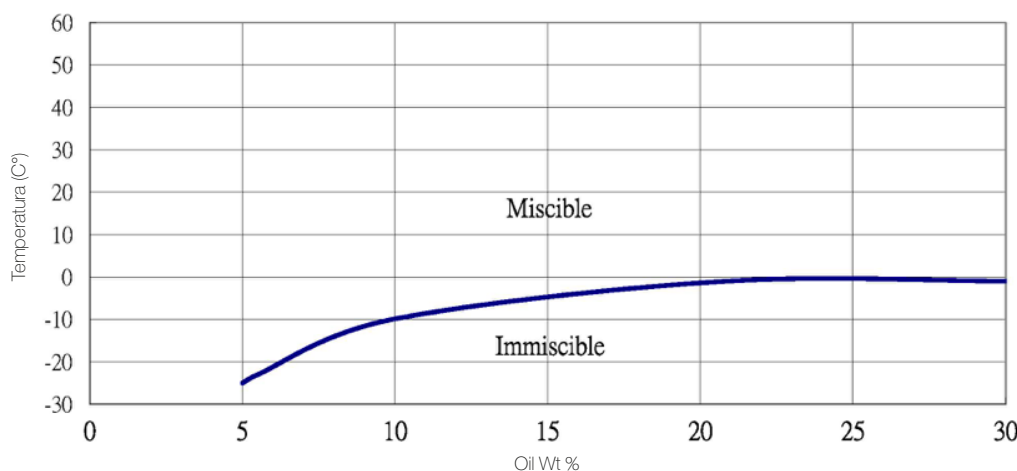
The pursued aims in the development of new Errecom Lubricants are:

- 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.

Method and reference unit	POE 32	Reference Method
ISO VG	32	-
Kinematic viscosity @ 40°C (cSt)	32	ASTM-D445
Kinematic viscosity @ 100°C (cSt)	5,4	ASTM-D445
Kinematic index	103	ASTM-D2270
Pour point (°C)	-48	ASTM-D 97
Flash point (°C)	244	ASTM-D 92
Density @ 15°C (g/cm³)	0,994	ASTM-D4052
Humidity content (ppm)	25	ASTM-E1064
Total acidity (mg KOH/g)	<0,03	ASTM-D 974
Color (APHA)	50	ASTM-D1209
Reaction catalyst residue (ppm)	<0,02	IM

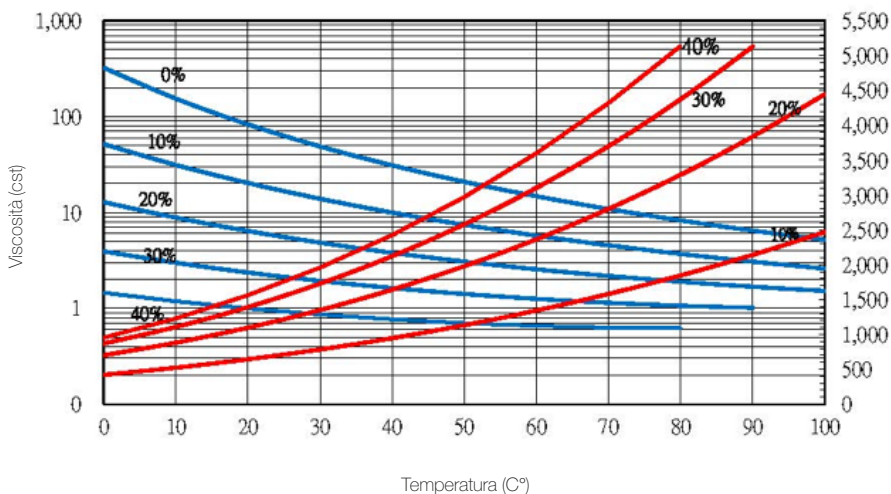
Thanks to the research and the complete removal of Polymerization Catalysts, Errecom POE is one of the more stable and less reactive POE within a System.

Miscibility of POE 32 for R32



Min. Miscibility Temperature at 20% in R32: -1°C

Viscosity and Pressure at Constant Concentrations R32 with POE 32 for R32



We can deduce that **R32 POE 32** has better performances than other traditional Polyol Esters in applications with R32.

R32 POE 32 Thermal Stability according to (ASHRAE 97-2007)		
Test: 175°C, 14 days Oil R32 1:1		
Appearance		Clear
Settling		None
Water Content		500ppm
Acidity	At the beginning	0,03
	At the end	0,073
Metals	Copper	No change
	Steel	No change
	Aluminium	No change

R32 POE 32 by Errecom presents a marked protective action toward the materials, even in extreme working conditions. This has been possible thanks to the new antioxidant and anticorrosive package.

Keep the product well closed in its tank, between -30°C and +50°C.
Do not expose to air.





POE 68 Lubricant for R32

Lubricant for AC/R Systems with R32

R32 POE 68 Synthetic Lubricant by Errecom is composed by a mix of NEW Polyol Esters and Additives which have been specifically formulated for a better lubrication, chemical and thermal stability and an excellent antiwear protection of all the components of AC/R Systems working with R32 (Refrigerant with low GWP level).

The new Lubricant has not only been developed to obtain the best performances with HFO R1234ze and yf Refrigerants as well as with HFC and HFO R452B, R448A mixtures, but it also increases the performances of HFC refrigerants such as R134a, R407C, R410A, and R404A. By optimizing the miscibility, we obtained an increase in terms of heat exchange even in the low temperature zone.

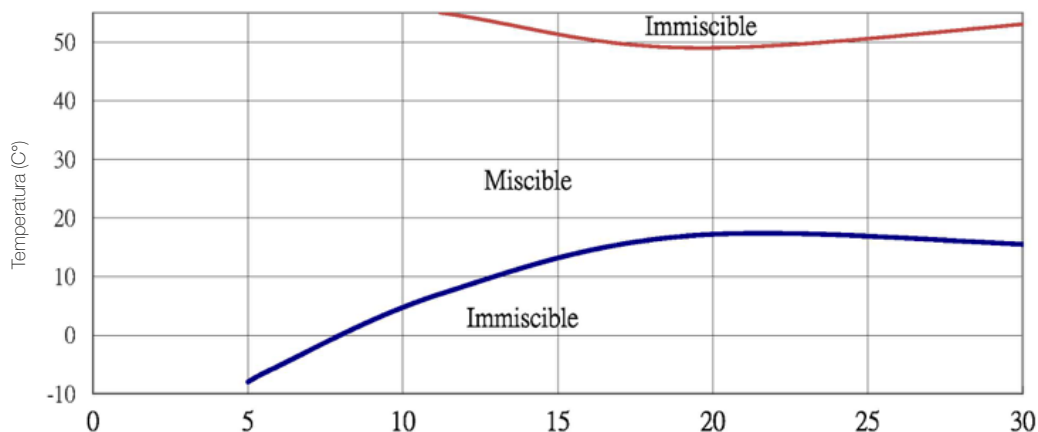
The pursued aims in the development of new ERRECOM Lubricants are:

- 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.

Method and Reference Unit	Value	Reference Method
ISO VG	68	-
Kinematic Viscosity @ 40°C (cSt)	67	ASTM-D445
Kinematic Viscosity @ 100°C (cSt)	8,7	ASTM-D445
Kinematic Index	101	ASTM-D2270
Freezing Point (°C)	-36	ASTM-D 97
Flash Point (°C)	260	ASTM-D 92
Density @ 15°C (g/cm³)	0,995	ASTM-D4052
Humidity Content (ppm)	25	ASTM-E1064
Total Acidity (mg KOH/g)	<0,03	ASTM-D 974
Color (APHA)	50	ASTM-D1209
Reaction Catalyst Residue (ppm)	<0,02	IM

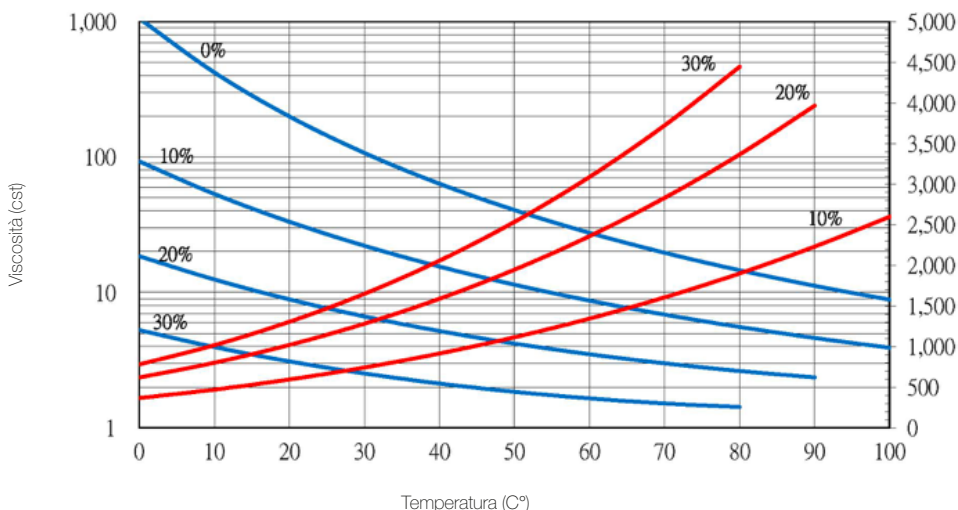
Thanks to the research and the complete removal of Polymerization Catalysts, Errecom POE is one of the more stable and less reactive POE within a System.

Miscibility of POE 68 for R32



Min. Miscibility Temperature at 10% in R32: 7°C

Viscosity and Pressure at Constant Concentrations R32 with POE 68 for R32



We can deduce that **R32 POE 68** has better performances than other traditional Polyol Esters in applications with R32.

R32 POE 68 Thermal Stability according to (ASHRAE 97-2007)		
Test: 175°C, 14 Days Oil R32 1:1		
Appearance		Clear
Settling		None
Water Content		500ppm
Acidity	At the Beginning	0,025
	At the End	0,064
Metals	Copper	No Change
	Steel	No Change
	Aluminium	No Change

R32 POE 68 by Errecom presents a marked protective action toward the materials, even in extreme working conditions. This has been possible thanks to the new antioxidant and anticorrosive package.

Keep the product well closed in its tank, between -30°C and + 50°C.

Do not expose to air.

