

# HIFREEZE SYN-PE

ISO VG 68

## Product Description

Premium grade fully-synthetic refrigeration compressor oils designed for use in HFC systems, produced from synthetic polyol ester (POE) lubricants which provide superior bearing protection with greater film strength than standard HFC lubricants. HIFREEZE SYN-PE provides excellent miscibility with HFC refrigerants and oil return from the evaporator to the compressor and effective wear protection for steel and aluminium surfaces for increased system life and improved efficiency.

## Benefits

- Miscibility with HFC refrigerants and excellent return from the evaporator.
- Very good thermal stability, minimal vapor phase oil carryover to downstream equipment.
- Provides low pour point and low temperature fluidity.

## Applications

- Designed for use with R-134a and other environmentally HFC (R-404a, R-407c, R-410a, R-507) refrigeration systems.
- Reciprocating, scroll, rotary and screw compressors
- HIFREEZE SYN-PE is compatible with elastomers commonly used in refrigeration systems.
- Not recommended for use in ammonia (R717) refrigeration systems.

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## Typical Characteristics

Tests	Methods	Units	Results
			<b>68</b>
Kinematic Viscosity at 40 °C	ASTM D445	mm <sup>2</sup> /s	65
Kinematic Viscosity at 100 °C	ASTM D445	mm <sup>2</sup> /s	8.3
Viscosity Index	ASTM D2270		96
Density at 15 °C	ASTM D4052	g/cm <sup>3</sup>	0.805
Flash Point (COC)	ASTM D92	°C	255
Pour Point	ASTM D5950	°C	-40
Total Acid Number	ASTM D664	mgKOH/g	<0.06
Miscibility Limit with R-134a 10% oil	Sealed Tube	°C	<-35
Miscibility Limit with R-404a 10% oil	Sealed Tube	°C	<-60
Miscibility Limit with R-407c 10% oil	Sealed Tube	°C	<-35
Miscibility Limit with R-410a 10% oil	Sealed Tube	°C	<-30

## Performance Standards

- Meets the requirements of DIN 51503 KD-Refrigerator oils for partially- and fully-fluorinated hydrocarbons (FC, HFC)

## Health and Safety

This product shows no significant health or safety hazard when used under the recommended applications and suitable handling.

Avoid the direct contact. Wash immediately after contact. Health and safety information is available on the Safety Data Sheet (SDS) which can be obtained from <http://pttlubricants.pttor.com>



Note: Data and information contained in this publication are based on standard test under laboratory conditions and/or performance test. To consider the use of PTT Lubricants' products in particular application, customer is responsible for determining whether product and information are appropriate for customer conditions or should consult with PTT Lubricants' technical service division. The procedure of using any lubricant may differ or change depended on different machines and their manuals. Therefore, we recommend to read, understand and review the latest SDS in order to ensure the use of product is accomplished safety.

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