

TECHNICAL PRODUCT SHEET

COMET SYNPOE ISO 68



DESCRIPTION

COMET SYNPOE 68 is a synthetic polyol ester (POE) lubricant specifically formulated for refrigeration and air-conditioning compressors operating with HFC refrigerants. It offers excellent chemical and thermal stability, ensuring cleaner system performance and reduced deposit formation. The lubricant provides strong wear protection for both steel and aluminum components, contributing to extended compressor life and improved overall system efficiency.

APPLICATIONS

COMET SYNPOE lubricants are primarily designed for refrigeration compressors operating with HFC refrigerants such as R134a, R404A, R407C, R410A, R507, R23, and others. They offer excellent miscibility with these refrigerants across the wide temperature ranges typical of household, commercial, and industrial systems—including air-conditioning units, room air-conditioning applications, and cargo refrigeration systems. This ensures reliable lubrication, efficient oil return, and stable system performance under varying operating conditions.

SPECIFICATIONS

DIN	515503 KD	Meets	Bock, Howden, York, Grasson
ISO	6743-3 (ISO-L-DRD)		

PROPERTIES

COMET SYNPOE remains free of wax formation even in low- and ultra-low-temperature applications, ensuring reliable performance in extreme conditions. It delivers high lubrication film strength for robust wear protection and maintains good miscibility and solubility with the refrigeration medium for efficient system circulation. Its formulation provides excellent chemical and thermal stability, supporting long-term cleanliness and dependable operation of refrigeration and cooling systems.

BENEFITS

COMET SYNPOE prevents blockage of expansion valves, capillary tubes, and oil-return orifices by eliminating waxy deposits formed in low-temperature areas. It provides effective compressor lubrication and ensures satisfactory oil return on the low-temperature side of the system for reliable operation. Its strong resistance to refrigerant decomposition helps prevent the build-up of sludge and deposits, supporting long-term system cleanliness and performance.



TECHNICAL PRODUCT SHEET

PHYSICAL-CHEMICAL CHARACTERISTICS

COMET SYNPOE	METHOD	ISO 68
Density at 15°C, g/cm ³	ASTM D4052	0.964
Viscosity, Kinematic (cSt) 40°C	ASTM D445	68
Viscosity, Kinematic (cSt) 100°C	ASTM D445	9.1
TAN, mgKOH/g	ASTM D974	0.03
Flash point, COC, °C	ASTM D92	260
Pour point, °C	ASTM D97	-48
Water content, ppm	ASTM D1533B	<50

The above mentioned characteristics represent mean values.

STORAGE

All packages must be stored in covered, well-ventilated areas. If outdoor storage cannot be avoided, barrels must be placed horizontally to prevent water ingress and to protect labels and markings from damage. Products must not be stored at temperatures above 60 °C and must not be exposed to direct sunlight, freezing conditions, or extreme temperature fluctuations.



HEALTH & SAFETY

This product is not considered to pose significant risks to health or safety when used as intended and in accordance with recommended personal hygiene practices. It must not be applied for purposes other than those for which it has been formulated. For detailed guidance on safe handling and use, refer to the Safety Data Sheet (SDS).



USED OILS

Used lubricants must be collected at designated collection points to prevent environmental contamination. They must not be mixed with solvents, brake fluids, or antifreeze.

