



HITECSYN Ultra PG

Synthetic Air Compressor Coolant

Polyether–Ester Dual-Synthetic Technology for High-Temperature Compressor Systems

Product Overview

HITECSYN Ultra PG is a high-performance synthetic air compressor coolant formulated with a dual-synthetic base-fluid system comprising polyether and polyol ester components. It is developed for the lubrication and cooling systems of air compressors operating under elevated temperature, high load, and continuous-duty conditions.

The formulation is designed to balance thermal-oxidative stability, deposit control, anti-wear and load-carrying performance, foam control, and corrosion protection. Actual fluid service intervals should be determined according to compressor design, operating conditions, equipment manufacturer requirements, and oil-condition monitoring results.

Product Features and Application Benefits

Dual-Synthetic Base-Fluid Technology

- Polyether and polyol ester base fluids provide a balanced combination of viscosity-temperature performance and thermal stability
- Viscosity index and pour-point data support selection for variable-temperature compressor service

Oxidation Stability and Deposit Control

- The antioxidant system helps slow fluid degradation under elevated-temperature and continuous-duty operation
- Designed to control sludge, varnish, and carbonaceous deposit formation and support system cleanliness

Wear, Corrosion, and Foam Protection

- The ashless anti-wear and extreme-pressure additive system is formulated to protect rotors, bearings, and other loaded components
- Foaming characteristics have been verified by ASTM D892, helping support stable lubricant circulation and compressor operation

Recommended Applications

- Oil-injected rotary screw air compressors
- Selected centrifugal air compressors where the equipment manufacturer permits this fluid technology
- Air compressor systems operating under elevated temperature, high load, and continuous-duty conditions

- Applications requiring synthetic coolant grades 22, 32, or 46, subject to equipment manufacturer approval

Typical Properties

Property	Test Method	22	32	46
Density at 20 °C, kg/L	ASTM D1298	0.965	0.978	0.983
Kinematic viscosity at 40 °C, mm ² /s	ASTM D445	24.2	32	46
Kinematic viscosity at 100 °C, mm ² /s	ASTM D445	5.10	6.73	8.98
Viscosity index	ASTM D2270	145	175	180
Flash point (COC), °C	ASTM D92	235	240	260
Pour point, °C	ASTM D97	−51	−48	−45
Rust prevention	ASTM D665	Pass	Pass	Pass
Acid number, mg KOH/g	ASTM D974	0.05	0.05	0.05
Copper strip corrosion (100 °C, 3 h), rating	ASTM D130	1A	1A	1A
Foaming characteristics (tendency/stability), mL/mL	ASTM D892	0/0	0/0	0/0
Sequence I, 24 °C		0/0	0/0	0/0
Sequence II, 93.5 °C		0/0	0/0	0/0
Sequence III, after 24 °C		0/0	0/0	0/0

The values shown are typical averages for technical reference only and do not constitute a quality guarantee.

Operating and Changeover Considerations

- Elevated operating temperature can accelerate oxidation; monitor viscosity, acid number, water content, cleanliness, and deposit condition
- Do not mix with mineral oil, PAO, or other dissimilar base-fluid systems without a documented compatibility assessment, including seals, coatings, and hoses
- A change in fluid colour alone does not necessarily indicate loss of performance and should be evaluated together with other condition-monitoring results
- Before conversion from another fluid, drain the existing charge, replace filter elements, and clean the system where required
- Determine the service interval using equipment manufacturer guidance, actual operating conditions, and periodic fluid analysis

Packaging Specifications

- 20 L plastic pail
- 60 L steel drum
- 200 kg steel drum
- Other packaging options may be agreed subject to supply conditions

Storage and Handling

Store the product indoors in sealed containers and protect it from water ingress, direct sunlight, and contamination. If outdoor storage is unavoidable, provide suitable shelter and protection against rain and moisture.

The recommended storage temperature should not exceed 60 °C. Confirm that the packaging is intact before use and follow a first-in, first-out inventory policy.

Health, Safety and Environment

Before using this product, consult the latest Safety Data Sheet (SDS) and follow its requirements for storage, handling, personal protective equipment, spill response, waste disposal, and environmental protection. Used coolant may contain contaminants introduced during operation and must be collected and disposed of in accordance with local regulations and site requirements.

Management System Certifications

This product is manufactured under ISO 9001:2015, ISO 14001:2015, and ISO 45001:2018 management systems.

Disclaimer

The information in this document is based on technical data, test results, and application experience available at the date of issue and is provided solely as general technical guidance. It does not constitute a quality guarantee, performance warranty, or contractual term. Users are responsible for assessing product suitability and complying with applicable legal, safety, environmental, and equipment manufacturer requirements.

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