

RENISO PG 68

Fully synthetic, polyalkylene glycol (PAG) -based, NH₃-soluble refrigeration oil

Description

Ammonia was previously used as a refrigerant only in large refrigeration units with complex oil recirculation systems.

The refrigeration industry now as well offers compact systems that require the use of an ammonia-soluble refrigeration oil. RENISO PG 68 refrigeration oil was developed using a carefully selected combination of PAGs and additives for this application. RENISO PG 68 is ultra-dried.

RENISO PG 68 refrigeration oil displays excellent lubrication properties, very good viscosity-temperature behaviour, and high chemical and thermal stability. RENISO PG 68 is used successfully in practical applications where the compressor is placed under high thermal loads and valve temperatures.

Application

RENISO PG 68 is designed for compressors in industrial and commercial refrigerating units using ammonia as a refrigerant for direct expansion systems.

This product is ultra-dried. RENISO PG 68 is highly hygroscopic. Minimize exposure of the product to ambient air. After opening a container, use the entire contents within one working day and ensure that the container is tightly sealed between uses. Please contact our application engineers. RENISO PG 68 is not miscible and compatible with mineral oil.

Specifications

DIN 51 503: KAB, NH₃-soluble refrigeration oil, fully synthetic - PAG.

Advantages/Benefits

- **Excellent NH₃ solubility / miscibility (miscibility gap 10% oil: - 35°C)**
- **Excellent viscosity-temperature behaviour**
- **Excellent low temperature flowability**
- **High thermal and chemical stability in contact with NH₃**
- **High lubricity**





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Typical Data:

Product name	PG 68		
Classification according to DIN 51 503	KAB - NH ₃ -soluble refrigeration oil		
Properties	Unit		Test method
Density at 15°C	kg/m ³	1044	DIN 51 757
Kinematic viscosity at 40°C	mm ² /s	70	DIN EN ISO 3104
at 100°C	mm ² /s	14	
Viscosity index	-	210	DIN ISO 2909
Pour point	°C	-52	DIN ISO 3016
Neutralization number	mgKOH/g	0.04	DIN 51 558
Colour	-	0.5	DIN ISO 2049
Flashpoint	°C	250	DIN ISO 2592
Solubility with NH ₃ , 10% oil with 90% NH ₃	°C	-35	DIN 51 514
Water content	mg/kg	300	DIN 51 777-2

Please note:

- 1) It is recommended to use steel materials (e.g. for the valves)
- 2) Equipment materials have to be compatible with polyglycols – PAGs (elastomers / plastic materials)
- 3) RENISO PG 68 is not compatible and miscible with mineral oils
- 4) RENISO PG 68 is a polar lubricant and hygroscopic
- 5) Ammonia (NH₃) can evaporate from the oil

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