



High Performance
Alkyl-Benzene
Refrigerating
Compressor Oil

LUNARIA K

can be used to lubricate either reciprocating, screw or turbo-centrifugal type of refrigerating compressors.

Suitable for Ammonia (R717), R12, R22, R123, R502 refrigerants.

+ Client's Benefits

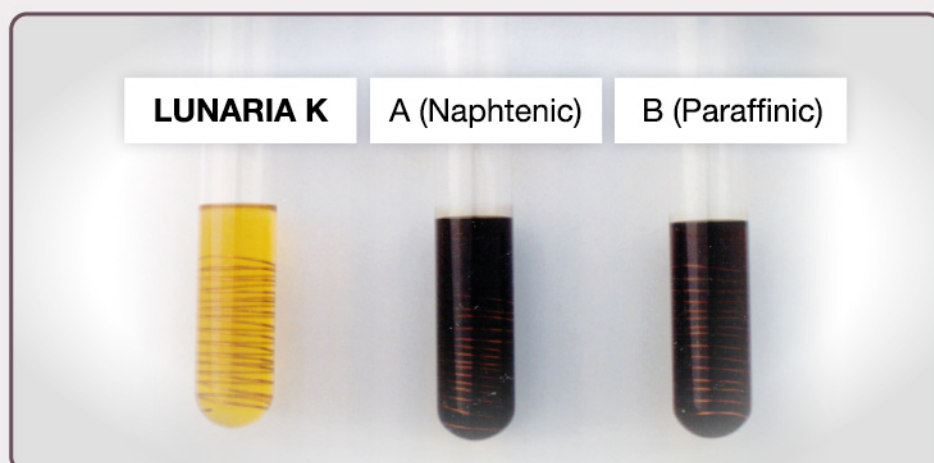
- ▶ Extended Service Life
- ▶ Reduced clogging at low temperature
- ▶ Wider operating temperature
- ▶ Better protection and reduced wear

Extended Service Life

- ▶ The Alkyl-Benzene technology of **LUNARIA K** enables a better oxidation rate than other refrigerating oils using Naphtenic and Paraffinic technologies.

Test items after ageing	LUNARIA K 46	Naphthenic VG 46 (A)	Paraffinic VG 46 (B)
TAN, mgKOH/g	0.11	0.17	0.17
Sludge, wt %	0.01	0.03	0.02

Comparative Oxidation Test according to ASTM D 2440



Results shown above were obtained through ageing the oil at 110°C for 96 hours under an oxygen flow rate of 1L/hr in the presence of a copper catalyst

LUNARIA K

CUSTOMER REFERENCES:

SAJO Industries
Deep Sea Fishing Vessels

TONG YOUNG Industry
Cold storage,
Deep Sea Fishing Vessels

GREEN WORLD
Ocean Carrier Vessels

GREEN STAR
Deep Sea Fishing Vessels

AGNES FISHERIES
Deep Sea Fishing Vessels

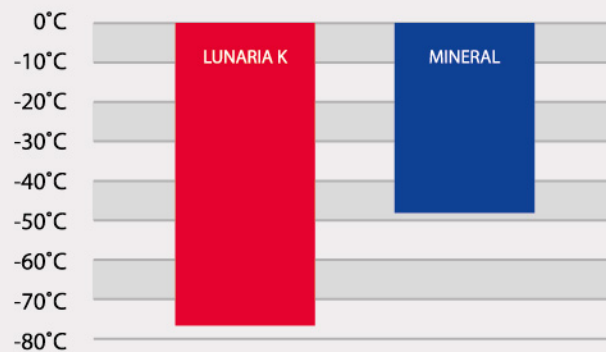
JING YOUNG Fisheries
Cold storage

KEUM YANG Ice Mfg
Cold storage



Reduced Clogging at Low Temperature

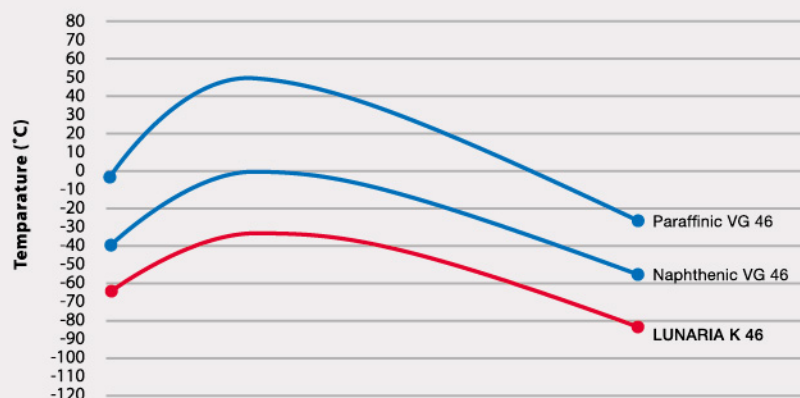
> Wax precipitation in the Refrigerant and Oil mixture at low temperatures can lead to clogging of capillaries or evaporator walls coating. This creates problems at expansion valve level and for the overall machine operation. **LUNARIA K** has a Floc point lower than mineral oils, thus reducing clogging.



*Comparative Floc Point of LUNARIA K and Mineral Oils
Results shown above indicate the temperature at which wax in the oil precipitates in refrigerant / oil mixtures lead to clogging*

Wider Operating Temperature

> The miscibility of **LUNARIA K** at low temperature with refrigerants such as R22 (see below example) is much better than that of Naphtenic and Paraffinic oils. This gives wider operating temperature, better performance and reduced wear at low temperatures.



*Low Temperature Miscibility curves (ASHRAE 86)
The Miscibility curve of LUNARIA K Alkyl-Benzene technology in comparison to Naphtenic and Paraffinic technologies*

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