SynCold[®] DRG Series

Refrigeration Compressor Lubricant

Introduction

SynCold® DRG series are synthetic naphthenic refrigeration lubricants specifically designed for hermetic refrigeration compressors using R600a refrigerant. They are ideal for low-temperature applications. The combination of carefully selected base oils and advanced additives ensures the SynCold® DRG series offers excellent chemical and high-temperature thermal stability, especially when used with hydrocarbon refrigerants like R600a.

Designed for factory fills and OEM modifications, SynCold® DRG lubricants keep hermetic refrigeration compressors running smoothly. A special anti-wear additive package minimizes wear by creating a strong lubricating film during operation. The outstanding low-temperature performance ensures sufficient lubricant return to the compressor even at low temperatures, preventing malfunctions caused by paraffin blockages in the capillaries. SynCold® DRG lubricants have excellent solubility and miscibility with natural hydrocarbons, particularly isobutane, and maintain very low water content.

Applications and Compressor Types

- Mixed hydrocarbon refrigerants, R600a
- Hermetic reciprocating refrigeration compressors

Features

Features	Benefits		
Good low-temperature fluidity	Facilitates efficient refrigeration lubricant circulation.		
Excellent thermal oxidation and chemical stability	Reduces the formation of varnish and deposits		
Wax-free	Improves evaporator efficiency due to excellent low- temperature fluidity and absence of wax-like deposits		
Wide range of viscosity grades	Meets the viscosity requirements of various equipment and applications		
Seal compatibility	Extends seal life and reduces shaft seal leakage		

Specifications

Compliance standards: Q/GH1002

Meet the following standards:

- GB/TT16630-2012, Standardization Administration of China (SAC)
- (DIN) DIN51503-1, German Society of Standardization
- (JISC) JIS K2211, Japanese Industrial Standards Survey (JISC)
- BS 2626, The British Standards Institute (BS)

Properties

Product Name	DRG5	DRG10	Test Method
ISO viscosity grade	5	10	GB/T 3142
Viscosity @40°C, mm²/s	5.35	9.85	GB/T 265
Color	<0.5	<0.5	GB/T 6540
Density @20°C, kg/m³	860	865	SH/T 0604
Water content, mg/kg	21	20	NB/SH/T 0207
Flash point, ℃	150	152	GB/T 3536
Pour point, °C	-65	-55	SH/T0886
Cloud point, °C	<-60	<-60	GB/T 12577
Acid value, mg KOH/g	<0.02	<0.02	GB/T 4945
Breakdown Voltage, kV	52	50	GB/T 507
Chemical stability @175℃, R66a, 14D	Pass	Pass	SH/T 0698
Extreme pressure (Falex) Failure load, N	3200	3250	SH/T 0187

SynCold® DRG Series is available in various viscosities to meet user specific needs. Additional information is available upon request.

Health and Safety

Refer to the Material Safety Data Sheet (MSDS) on the official website for health and safety information.

Package size

200L drums, 20L pails, 10L pails, 4L containers, 1L bottles

