



Refrigerant Compressor Oil

Phillips 66® Refrigerant Compressor Oil is a highly refined naphthenic mineral oil developed primarily for use in reciprocating and rotary screw compressors in refrigeration systems using ammonia, carbon dioxide, or non-HFC refrigerants. It also may be used as a general-purpose, light-duty lubricant for industrial machinery operating in cold environments.

Refrigerant Compressor Oil is manufactured from carefully selected wax-free base stocks to have a low pour point and a low floc point for use in refrigeration system compressors. It has excellent low-temperature properties, good oxidation stability, and low carbon-forming tendency to minimize deposit formation, provides good lubricity for protection against wear, and has excellent miscibility with non-HFC refrigerants. It also has good solvency and light color for use as a process oil or as a blending component in other lubricants.

Refrigerant Compressor Oil meets the performance requirements of leading OEMs for use in refrigeration system compressors where the manufacturer specifies a naphthenic mineral oil.

Applications

- Compressors in refrigeration systems using ammonia, carbon dioxide, or CFC or HCFC refrigerants, such as R-11, R-12, R-22, and R-502⁽¹⁾
- Plain and rolling-element bearings operating at low temperatures and under light loads
- Drive chains
- Process oil

⁽¹⁾ **Note:** Refrigerant Compressor Oil is **not** recommended for use with HFC refrigerants such as HFC R-134a.

Features/Benefits

- Excellent low-temperature properties
- Wax-free
- Good oxidation stability
- Low carbon-forming tendency
- Excellent miscibility with non-HFC refrigerants
- Good lubricity
- Good solvency
- Light color

Naphthenic Refrigeration Compressor Oil & Light-Duty Machine Oil





Refrigerant Compressor Oil

Typical Properties					
ISO Grade		15	22	68	100
Specific Gravity @ 60°F		0.893	0.898	0.915	0.921
Density, lbs/gal @ 60°F		7.44	7.48	7.62	7.67
Color, ASTM D1500	ASTM D1500	0.5	0.5	2.5	3.0
Flash Point (COC), °C (°F)	ASTM D92	162 (324)	174 (345)	184 (363)	194 (381)
Pour Point, °C (°F)	ASTM D97	-51 (-60)	-48 (-54)	-32 (-26)	-29 (-20)
Floc Point, °C (°F)	ASHRAE 86	-58 (-72)	-49 (-56)	-33 (-27)	-31 (-24)
Viscosity					
cSt @ 40°C	ASTM D445	15.1	22.1	67.2	98.9
cSt @ 100°C		3.1	3.8	6.9	8.4
Viscosity Index	ASTM D2270	36	20	30	23
Acid Number, mg KOH/g	ASTM D974	0.05	0.05	0.05	0.05
Carbon Residue, wt %	ASTM D524	0.02	0.02	0.07	0.08
Aniline Point, °C (°F)	ASTM D611	78 (172)	80 (176)	82 (180)	82 (180)
Foam Test, Seq. I, mL	ASTM D892	10/0	10/0	10/0	10/0

Health & Safety Information

For recommendations on safe handling and use of this product, please refer to the Safety Data Sheet via <http://www.phillips66.com/SDS>