

# TECH DATA COMPRO™ SYNTHETIC COMPRESSOR FLUID

### INTRODUCTION

Petro-Canada Lubricants COMPRO Synthetic compressor fluid is a premium performance lubricant designed for rotary screw air compressors running at extreme high and low temperatures, or in severe service applications where there can be no risk of varnish or carbon residue on compressor components. COMPRO Synthetic is formulated from a custom blend of polyalkylene glycol (PAG) and ester fluids, and is fortified with anti-wear and anti-corrosion additives. COMPRO Synthetic outperforms PAO synthetic based fluids at high air discharge temperatures up to 105°C/221°F and delivers up to one year continuous service or 8,000 hours.

### **FEATURES AND BENEFITS**

# Will not form varnish or carbon residue on compressor even at very high operating temperatures

- Better resistance, versus all hydrocarbon based fluids, to oxidative breakdown caused by exposure to air at high discharge temperatures
- Keeps compressor components completely free of carbon, sludge and varnish
- Ensures trouble free operation and lower maintenance costs on fluid change-out
- Extends oil change intervals to 8,000 hours service in rotary screw compressors, even at air discharge temperatures as high as 105°C/221°F

# COMPRO Mineral Oil

COMPRO M Synthetic

Unlike hydrocarbon based compressor oils, the chemistry of COMPRO Synthetic will not form carbon or varnish residue on compressor components. This ultimate level of performance provides up to 8,000 hours of continuous, worry-free service and the opportunity to significantly reduce operating costs, even at air discharge temperatures as high as 105°C/221°F.

Image: Glassware from the IP 48/97 (modified) Oxidation Test at 200°C/392°F.

### Operates at very high and very low temperatures

- Provides worry free service, even in extreme operating conditions
- Allows quick start-up, in low ambient temperature applications
- Ideal for compressors operating in remote environments where the risk of compressor downtime is critical

### **Excellent protection against wear**

- Prolongs the service life of working components
- Can extend the time between compressor overhauls
- Reduces overall maintenance costs

### Protects against rust and corrosion

• Helps to extend component life

### Low volatility reduces oil carry-over into the air system

• Reduces fluid consumption

### **APPLICATIONS**

COMPRO Synthetic is suitable for use in compressors that handle air, and inert gases such as nitrogen, argon, hydrogen, neon, helium, carbon dioxide, carbon monoxide and blast furnace gas.

COMPRO Synthetic compressor fluid is specifically designed for rotary screw air compressors operating in severe applications, including high and low temperature extremes. COMPRO Synthetic outperforms PAO synthetic based fluids at these high discharge temperatures and delivers up to one year continuous service or 8,000 hours.

COMPRO Synthetic is compatible with standard seal and hose materials used in most compressors.

NOTE: COMPRO Synthetic should not be used in systems compressing wet or sour hydrocarbon gases. For these applications, Petro-Canada Lubricants line of natural gas compressor fluids are recommended.

NOTE: COMPRO Synthetic must not be used in the compression of oxygen, or other chemically active gases such as chlorine or hydrogen chloride.

NOTE: DO NOT USE in breathing air apparatus or medical equipment.

### **OPERATIONAL CONSIDERATIONS**

The polyalkylene glycol (PAG) chemistry of COMPRO Synthetic has a natural tendency to dissolve or absorb water. For this reason, COMPRO Synthetic is not recommended in compressor applications where there is the potential for excessive water contamination or exposure to corrosive environments.

While COMPRO Synthetic is compatible with other polyalkylene glycol (PAG) based fluids, it is not compatible with mineral oil based fluids nor other synthetic compressor fluid chemistries, and should not be mixed or contaminated with these fluids

Please note that certain makes of compressors do not permit complete draining. If the drained oil is not compatible with COMPRO Synthetic, flushing and/or cleaning must be performed at the time of fluid change-over.

For complete instructions on cleaning varnished compressors or flushing and recharging the compressor with COMPRO Synthetic, please consult with a Petro-Canada Lubricants Technical Services Advisor.

### **COMPRESSOR FLUID GRADE SELECTION & SERVICE LIFE**

Compressor Type	Recommended Product	Fluid Service Life at Maximum Air Discharge Temperature
Rotary Screw	COMPRO Synthetic	8,000 Hours 105°C (221°F)

Note: The above are general guidelines only. Consult the OEM service manual for specific make/model recommendations. A Petro-Canada Lubricants Technical Services Advisor can help to refine these recommendations for a given application.

## **TYPICAL PERFORMANCE DATA**

Property	ASTM Test Method	COMPRO SYNTHETIC
Density, kg/L at 15°C	D4052	0.987
Viscosity, cSt @ 40°C cSt @ 100°C SUS @ 100°F SUS @ 210°F	D445	40.7 7.6 207 52
Viscosity Index	D2270	157
Flash Point, COC, °C / °F	D92	257 / 495
Pour Point, °C / °F	D5950	-51 / -60
Acid Number (AN), mg KOH/g	D664	<0.1
Wear Protection: Four Ball Wear, scar diam (mm)	D4172	0.6
Corrosion Protection: Copper Corrosion, 3h @ 100°C Rust A – Distilled Water	D130 D665	1b Pass
Residue & Ash: Ramsbottom Carbon Residue, Mass %	D524	0.20
Foam Sequence II	D892	25/0

The values quoted above are typical of normal production. They do not constitute a specification.

Learn more about us:  ${\bf petrocanadalubricants.com}$ 

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Committed to the disciplined operation of our business.



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