

COMPRO™ XL-S COMPRESSOR FLUID

Introduction

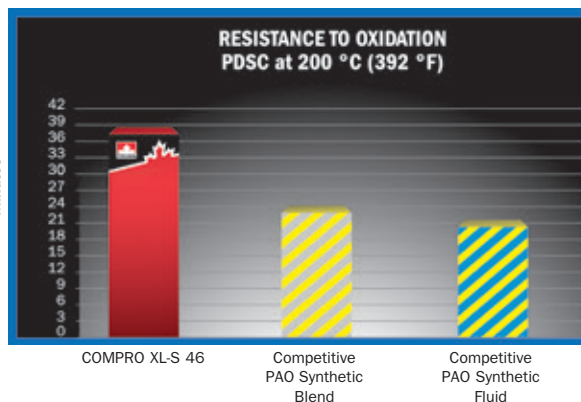
Petro-Canada's COMPRO™ XL-S Compressor Fluids are premium quality lubricants specifically designed to provide effective lubrication in air compressors.

COMPRO XL-S fluids are formulated to include Petro-Canada's own pure hydrotreated base oils from the HT purity process, and / or Petro-Canada's own highly refined and severely processed hydroisomerized and catalytically dewaxed base oils for lubricant performance. Utilizing more than 25 years of formulating experience, Petro-Canada fortifies these thermally stable fluids with a specially selected additive combination to ensure high performance synergy in the finished lubricant.

With excellent oxidation stability, corrosion, deposit control and low volatility, COMPRO XL-S provides up to 8,000 hours of continuous worry-free service in rotary screw air compressors for lubrication, sealing and effective heat removal for efficient compressor performance.

Features and Benefits

- **Excellent resistance to oxidative breakdown caused by exposure to air at high discharge temperatures**
 - Reduces oil thickening, maintaining good fluidity through pumps, lines, filters and actuators.
 - Controls build-up of acidic by-products that can accelerate oil deterioration and promote corrosion
 - Controls build-up of sludge and varnish to ensure smooth operation through fine tolerances



COMPRO XL-S provides excellent resistance to oxidative breakdown caused by exposure to air at high temperatures.

- **Higher thermal stability reduces carbon deposit formation**
 - Improves compressor operating efficiency
 - Reduces valve sticking and maintains heat transfer efficiency of intercoolers
- **Improved viscosity index and good low temperature properties**
 - Improves film thickness at elevated temperatures
 - Better cold temperature fluidity for low temperature start-up.
- **Good protection against wear**
 - Prolongs the service life of working components such as rotor bearings, vane tips, piston rings and liners
- **Protects against rust and corrosion**
 - Helps to extend component life, especially when running intermittent service in high humidity conditions
 - Good water separation for water removal and to minimize emulsions
- **Low volatility reduces oil carry-over into the air system**
 - May reduce fluid consumption for reservoir top-up

What is the HT difference?

Petro-Canada Lubricants starts with the HT purity process to produce water-white, 99.9% pure base oils. The result is a range of lubricants, specialty fluids and greases that deliver maximum performance for our customers.



Applications

While COMPRO XL-S Compressor Fluid may be used to lubricate and cool all types of rotary vane, reciprocating, centrifugal and lobe air compressors, it is specifically designed to significantly extend service life in rotary screw compressors. It is available in five ISO viscosity grades: 32, 46, 68, 100 and 150 to cover most compressor applications.

COMPRO XL-S 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 XL-S is suitable for use in all makes of compressors, including:

ABAC	GrimmerSchmidt
Allis Chalmers	Ingersoll-Rand
Atlas-Copco	Joy Manufacturing
Ceccato	Kaeser Compressors
Champion Pacific	Kellogg-American
Chicago Pneumatic Tool	Le Roi
Compair Canada	M&D Pneumatics
Copper-Bressemer	MAHLE
Copper Industries	Mark
Cooper-Penjax	Quincy Compressors
Davey Compressors	Schramm Inc.
Dresser Industries	Sullair Compressors
Elliot Company	Sundstrand Corp.
Fuller Company	Worthington Compressors
Gardner-Denver	

All COMPRO XL-S Compressor Fluids are NSF H2 listed (no allowable food contact).



Nonfood Compounds
Program Listed H2

COMPRO XL-S is compatible with standard seal and hose materials used in most compressors.

COMPRO XL-S Compressor Fluid is also suitable for use in industrial vacuum pumps operating with a vacuum of >0.005 mBar.

NOTE: COMPRO XL-S should not be used in systems compressing wet or sour hydrocarbon gases. For these applications, Petro-Canada's Compressor Oil RP, SPX Fluid or NGS Fluid is recommended.

NOTE: COMPRO XL-S 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 full benefits of a change to COMPRO XL-S Compressor Fluid will only be realized by minimizing contamination with the previously used oil. Certain makes of compressors do not permit complete draining, so if the drained oil is heavily oxidized (shown by significant increase in the oil's acid number and viscosity), recharging with COMPRO XL-S may not result in optimum performance and fluid service life.

While COMPRO XL-S is fully compatible with most mineral and synthetic compressor fluids, it should not be mixed or contaminated with fluids containing polyalkylene glycols or silicones.

For complete instructions on cleaning varnished compressors, or flushing and recharging your compressor with COMPRO XL-S Compressor Fluid, consult with a Petro-Canada Technical Services Advisor.

Compressor Fluid Grade Selection & Service Life

Compressor Type	Recommended Viscosity Grades	Fluid Service Life at Maximum Air Discharge Temperature
Rotary Screw	COMPRO XL-S 32, 46	8,000 Hours 85°C (185°F)
Rotary Vane	COMPRO XL-S 100, 150	1,000 Hours 85°C (185°F)
Reciprocating	COMPRO XL-S 68, 100, 150	500 Hours 150°C (302°F)
Centrifugal / Lobe	COMPRO XL-S 32	>16,000 Hours 50°C (122°F)

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

Typical Performance Data

PROPERTY	TEST METHOD	COMPRO XL-S COMPRESSOR FLUID				
		32	46	68	100	150
Viscosity, cSt @ 40°C (SUS @ 100°F) cSt @ 100°C (SUS @ 210°F)	ASTM D445	36.6 (188.2)	47.2 (242.6)	71.3 (363.4)	100.7 (517.2)	146.5 (763.4)
	ASTM D445	6.0 (45.9)	7.2 (50.2)	11.6 (65.6)	14.1 (75.3)	16.1 (83.6)
Viscosity Index	ASTM D2270	107	114	157	143	115
Flash Point, °C (°F)	ASTM D92	243 (469)	241 (466)	271 (520)	263 (505)	287 (549)
Pour Point, °C (°F)	ASTM D5950	-42 (-44)	-42 (-44)	-36 (-33)	-27 (-17)	-24 (-11)
Acid Number (AN), mg KOH/g	ASTM D664	0.15	0.14	0.13	0.11	0.14
Water Separability: mL at 54°C (129°F), minutes mL at 82°C (180°F), minutes	ASTM D1401	40-40-0 (5)	40-40-0 (15)	41-39-0 (15)	-	-
		-	-	-	41-39-0 (10)	40-40-0 (10)
Corrosion Protection: Copper Corrosion, 3h @ 100°C Rust B – Synthetic Sea Water	ASTM D130	1b	1b	1a	1a	1a
	ASTM D665B	Pass	Pass	Pass	Pass	Pass
Residue & Ash: Ramsbottom Carbon Residue, mass %	ASTM D524	0.04	0.03	0.02	0.05	0.09
Foam Sequence I	ASTM D892	10/0	0/0	5/0	10/0	0/0
Foam Sequence II		20/0	0/0	20/0	0/0	10/0
Foam Sequence III		0/0	0/0	0/0	0/0	0/0
Noack Volatility % mass loss, 1h @250°C	DIN 51581	8.42	6.46	3.26	2.54	1.32
PDSC, 200°C, minutes	ASTM D6186	34	36	36	35	38

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

To order product or to learn more about how Petro-Canada Lubricants can help your business visit: lubricants.petro-canada.com or contact us at: lubecsr@petrocanadalsp.com



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