QUALITY LUBRICATES.

Anderol® S series

High performance food grade compressor oils at competitive prices. Anderol® S Series offers the most desirable characteristics of a premium compressor lubricant at a significantly lower price. A good choice for customers looking to take advantage of the benefits afforded from synthetic oils without increasing costs. **anderol.com**

Anderol®

QUALITY WORKS.

LANXESS
Energizing Chemistry

ANDEROL® S SERIES

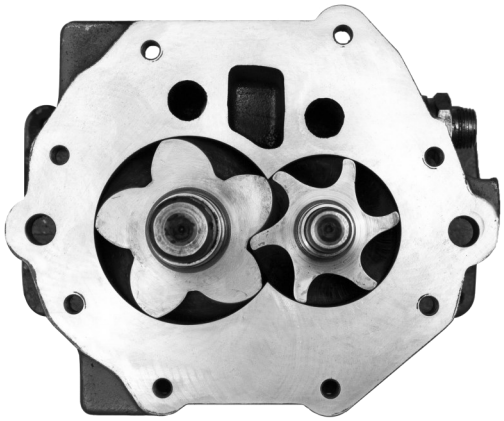
Semi-synthetic lubricating oils are formulated from synergistic blends of severely hydrotreated, hydrocracked (Group III) base oils to provide a more refined, high-quality product. These are enhanced with premium synthetic esters and proven additive technology, which help to improve viscosity, wear resistance at higher temperatures, and stress levels. Furthermore, this also increases their detergency properties, resulting in clean machinery lubrication.

Anderol® S Series offers some of the most desirable characteristics of a premium, fully synthetic compressor lubricant at a significantly lower price. This makes it a good choice for customers looking to take advantage of the benefits afforded from synthetic oils over mineral oils without increasing costs. Compatibility is assured with Anderol® S Series lubricant and there is no need for special precautions when switching from a mineral oil-based lubricant for use with paints, seals, gaskets and hoses.

- Successful field trials have shown the oil life of ISO VG 46 and ISO VG 68 exceeds 6,000 hours

Anderol® S Series for Industrial applications are available in ISO VG 32, 46, 68, 100

Anderol® S Series advantages over mineral oils	
Synthetic grade protection for expensive equipment	Superb deposit and sludge control
	Excellent thermal and oxidative stability
	Good demulsibility and foaming resistance
	Excellent high/low temperature performance
	Excellent heat transfer properties
	Superb lubrication and cooling properties
	High stability even in extreme conditions
	High temperature shear stability
	Low volatility for longer life
Operational savings	Energy savings of up to 4 percent
	Extended lifetime (an additional 2,000 hours)
	Extended drain intervals
	Elimination of seasonal oil changes
	Energy savings of up to 4 percent
	Cooler compressors



TEST RESULTS

ANDEROL® S 46

Four-Ball Wear

In Four-Ball Wear tests used to evaluate the anti-wear properties of a lubricant, the Anderol® S 46 outperforms standard mineral oil.

The scar diameter left as a result of the test determines the ability of the lubricant to prevent wear. The smaller the scar diameter, the better the protection.

Although a Four-Ball wear test result of less than 0.5mm is generally regarded as very good, tests indicate that the Anderol® S 46 lubricant has a result of 0.49mm – demonstrating a very high film strength.

Volatility

The volatility of a lubricant defines its evaporative loss characteristics. The more volatile it is, the lower the temperature at which smaller hydrocarbon molecules will be driven off or evaporated. The loss of smaller hydrocarbons from the oil can increase the viscosity, especially at higher temperature application. A more volatile lubricant also means greater flammability. The oil film could break on the cylinder, resulting in wear as well as increased oil consumption.

Petri scale tests show that the percentage evaporation loss at 100°C over 22 hours is only 1.5% for Anderol® S 46 compared with 7.8% for standard mineral oil.

Thermal Oxidation Stability

The thermal oxidation stability PDSC test shows equally impressive results. High pressure differential scanning calorimetry is a thermal analytical method that allows for a fast and reliable determination of the thermal oxidation stability of the lubricant. The PDSC curve is used to determine the beginning of oxidative degradation. The time from the first exposure to air or oxygen, until the onset of the oxidation is called the oxidation induction time. The longer it takes until oxidation occurs the better the quality of the product.

Under test conditions of 1-4 mg, 200°C, heat rate 100°C/min.,500 psi air, the Anderol® S 46 clearly offers much better oxidation stability (111.66) versus standard mineral oil (87).

Deposit Control

Just as the service life of the lubricant is important, so too is its deposit control. Anderol® S 46 boasts exceptional deposit and sludge control, as well as an extremely low degree of deposit formation versus other products.

A series of petri scale tests were completed to demonstrate its performance and thermal oxidation stability. (See next page) All sample products were placed in a petri dish, heated to 220°C and monitored. After twelve hours, Anderol® S 46 was lighter in color than its competitors, indicating its thermal stability. It also displayed no sign of sediment.

Test	Sample	Standard mineral oil ISO VG 46	Anderol® S 46
Four-Ball Wear ASTM D 4172	Average mm	0.46	0.49
Volatility	Petri @100°C % Evaporation loss	7.80	1.32
Thermal oxidation stability P DSC	Air 200°C Mins	86.70	111.66

TEST RESULTS

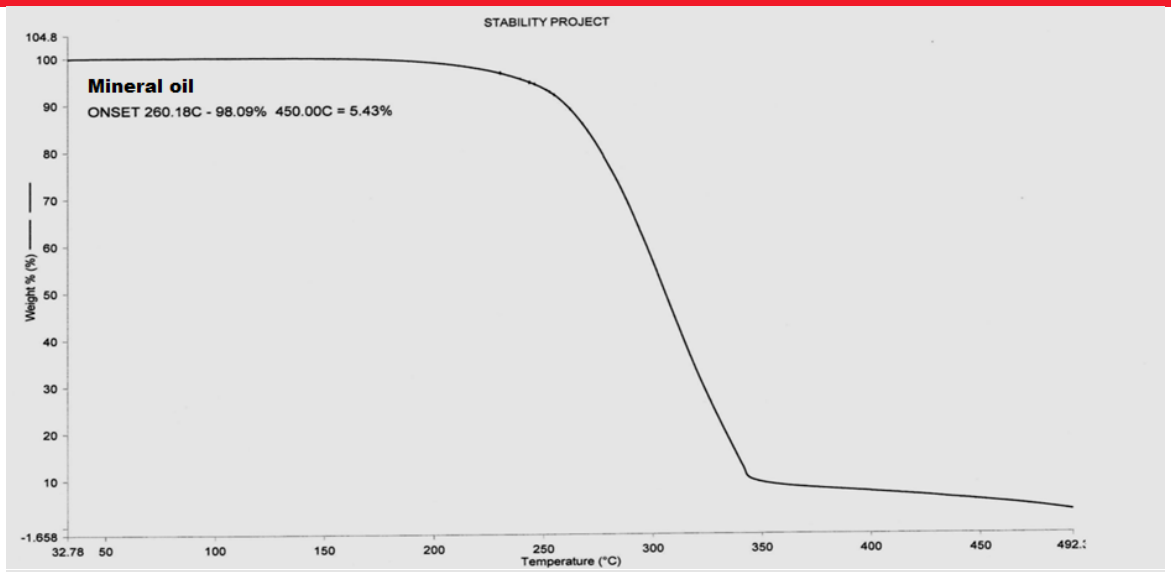
ANDEROL® S 46

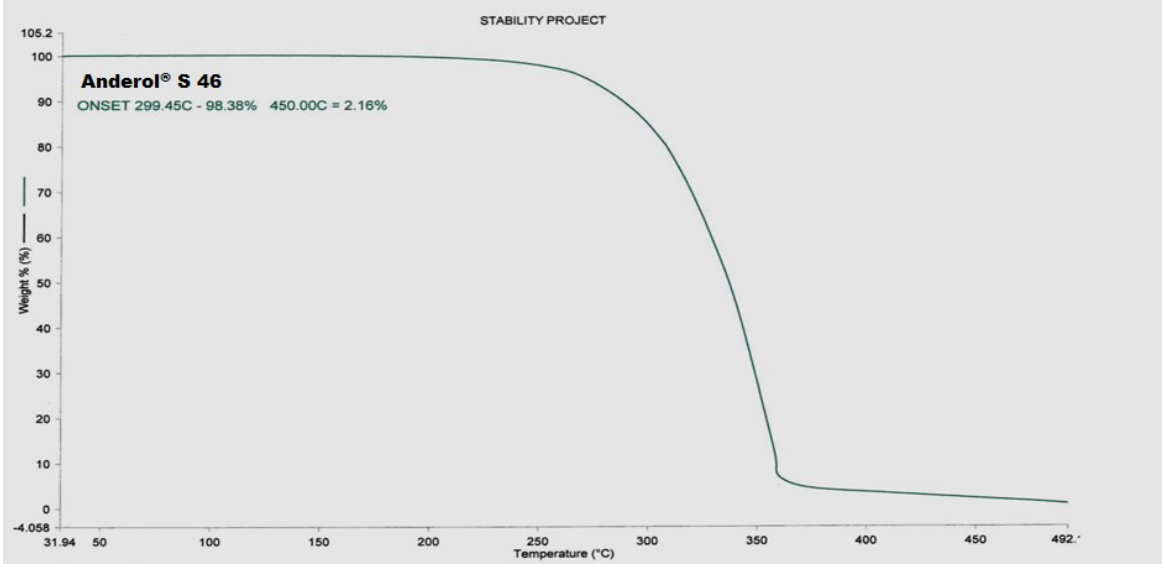
Thermal Oxidation Stability Petri Scale at 220°C

	Fresh oil samples	After 12 hours	
Anderol® S 46			Amber no precipitation
Competitor			Black more viscous
Standard Mineral oil			Dark brown more sediments

The test shows that the Anderol® S 46 is more thermal stable and has higher resistance towards oxidation.

Thermal Oxidation Stability TGA





The Anderol® S range has not only a higher onset temperature which indicates a higher thermal stability, the residues are a lot less, leading to cleaner lubrication.

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