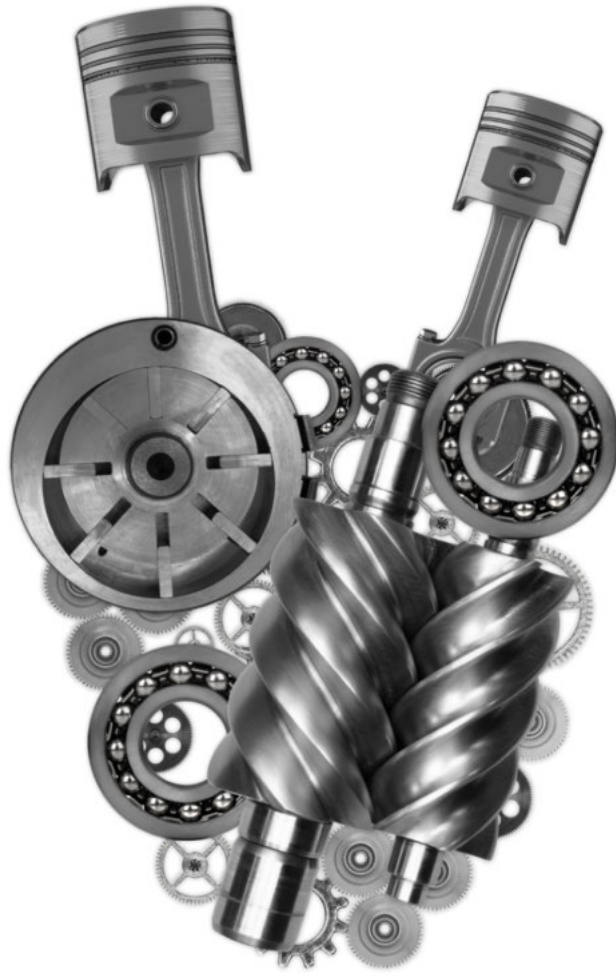


QUALITY LUBRICATES.



Selecting the right food-grade compressor lubricant

With many food and drink processors running their production 24/7, compressor equipment needs to provide optimal reliability and performance with minimal downtime. It is essential that the right lubrication is applied. This brochure offers a Good, Better, and Excellent guide to selecting the most appropriate food-grade compressor lubricant for your equipment. anderol.com

X **Anderol**[®]

QUALITY WORKS.

LANXESS
Energizing Chemistry

GUIDE FOR FOOD GRADE COMPRESSOR LUBRICATION

Compressed air is a key energy source, trusted across the food and beverage industry for all aspects of production and processing—from transport and processing of raw materials through to the final stages of packaging and bottling. Clean and contaminant-free compressed air is vital.

Growing awareness of the importance of food-grade lubricants for consumer safety and Hazard Analysis and Critical Control Point (HACCP) regulations triggered an increasing demand for high-performance food-grade lubricants.

Selecting an appropriate lubricant for your compressor that boasts the specific properties can be difficult. The right solution means considering consumer safety and enhanced performance, while also helping to reduce maintenance costs and downtime.

Standard mineral oil is unable to meet the greater demands that are now being placed on air compressor lubricants. Anderol[®] semi-synthetics and synthetics have excellent thermal oxidation stability, allowing for long machinery service intervals. The Anderol[®] lubricants portfolio offers a fitting solution for every lubrication problem.

The following offers a Good, Better, and Excellent guide to selecting the most appropriate food-grade compressor lubricant for your equipment:

All Anderol[®] Food Grade Compressor lubricants are NSF H1 Registered, produced in an ISO 21469 certified plant and are Kosher and Halal certified.



Good: Semi-synthetic Lubricants

Semi-synthetic food-grade oils offer an attractive blend of low cost and good performance. These are formulated from synergistic blends of severely hydrotreated, hydrocracked (Group III) base oils to provide a more refined, high-quality product.

They are enhanced with premium synthetic esters and proven additive technology, which help to improve viscosity, wear resistance at higher temperatures, and stress levels, as well as increasing their detergency properties—resulting in clean machinery lubrication. Semi-synthetic oils can easily last up to 4,000 hours, twice as long as the 2,000 hours achieved by standard mineral oils.

The semi-synthetic Anderol[®] FG S Series offers some of the most desirable characteristics of a premium synthetic lubricant at a significantly lower cost. This makes it an economically attractive choice for customers looking to take advantage of the benefits of synthetic oils over mineral oils without additional costs.

Compatibility is assured with Anderol[®] FG S Series lubricants, and there is no need for special precautions when switching from a mineral oil-based lubricant for use with paints, seals, gaskets and hoses. The Anderol[®] FG S Series for food-grade applications is available in ISO VG 32, 46, 68 and 100.

Better: PAO-based Synthetic Lubricants

Synthetic lubricants offer excellent levels of performance and have many advantages over mineral oil lubricants. Rotary screw compressors, in particular, require a synthetic lubricant.

Polyalphaolefin (PAO) based lubricants are most suitable for compressors, and they offer a series of advantages such as high-temperature thermal and oxidative stability, high flash point and low volatility, as well as being hydrolytically stable.

Anderol[®] FG XL Series is a high-performance synthetic food-grade lubricant with improved detergency for compressors and vacuum pumps. Its nominal operating range is -40°C to 170°C, and the performance time is up to 8,000 hours. Anderol[®] FG XL Series is available in ISO VG 32, 46, 68, 100 and 150.

GUIDE FOR FOOD GRADE COMPRESSOR LUBRICATION

Excellent: PAO/Ester-Based Synthetic Lubricants

Companies are increasingly balancing efficiency and sustainability. Machine operators expect longer machinery service intervals and therefore longer-life compressor lubricants. Longer oil life properties result in simply fewer production stops, a higher production output, less oil consumption and reduced waste.

Anderol® SYNcom FG HiPerf Series are extreme long-life synthetic rotary screw compressor lubricants. This PAO/ester-based lubricant offers the best of a PAO base, enhanced with a special ester to take additive solubility and the detergency of the whole formulation to a completely different level. This results in very low deposits and cleaner machinery, which improves the lubricant's longevity and machine life.

Anderol® SYNcom FG HiPerf 46 offers excellent viscosity to temperature behavior, has a wide operating temperature range (-40°C up to 240°C peak temperature), very low evaporation loss (<0.01% at 100°C) of 22 hours, according to ASTM D972, and a very good film strength. This oil can last an entire maintenance cycle.

Extreme environments

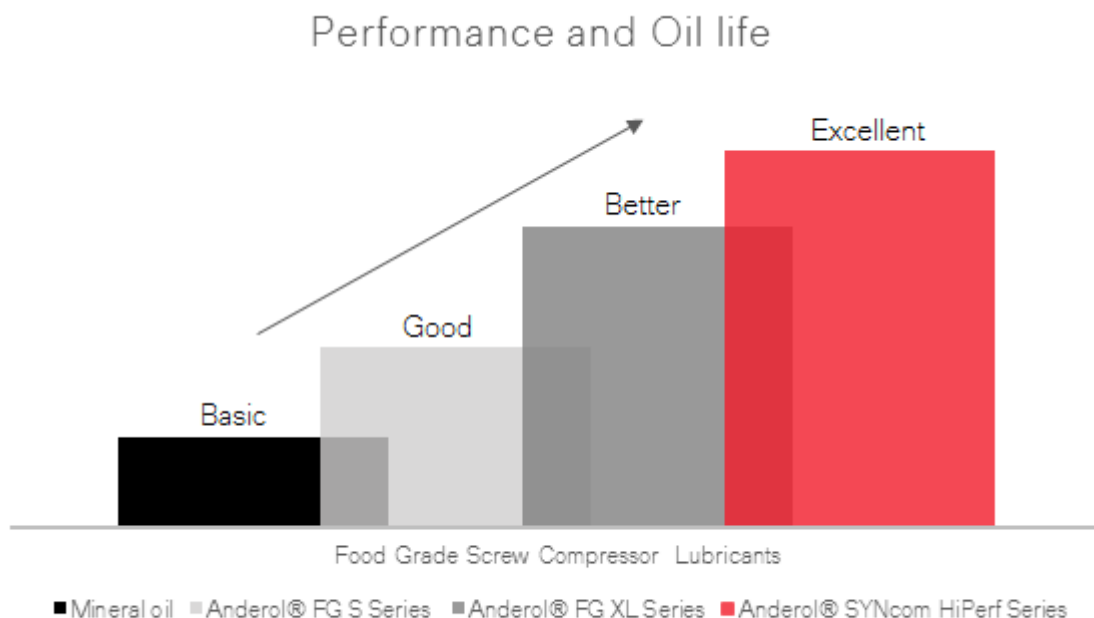
Very humid and acidic environments require a special lubricant that does not hydrolyze at high temperatures, form sludge or attack the seals and paints.

To meet these requirements, the lubricant additives business from LANXESS has developed C-NRT FGC for compressors and C-NRT Plus FG for vacuum pumps under the Anderol® brand, which are inert to the reactive gases found in the more challenging compressor and vacuum environments. Anderol® C-NRT lubricants are full cyclic aromatics or mixed with a synthetic hydrocarbon base specially formulated to increase service life in aggressive environments.

Not only will this product withstand attacks of aggressive gasses and resist rapid breakdown, it is also capable of keeping the deposits in solution, which has not been seen with any other mineral-, ester- or PAO-based product in these circumstances. The thermal and oxidative stability of the base fluid together with oxidation inhibitors extends the lubricant life at elevated temperature conditions.

Anderol® C-NRT products do not degrade at the same speed as other lubricants in harsh conditions, thereby dramatically increasing the service life of the compressor or pump. They are specifically designed to provide inertness and long-term lubrication in applications where contact with (reactive) chemistries cannot be avoided. Thanks to its excellent detergency effect, deposit/lacquering formation is avoided.

Comparison of food-grade lubricants performance and oil life



Delivering Cost Savings

Synthetic high-performance compressor lubricants offer significant savings. Although the cost of synthetic lubricants may be higher, their benefits offset the initial costs to offer an excellent return on investment.

Oil and filter replacement is minimized, disposal costs are reduced, and less maintenance brings down expensive labor costs. In addition, Anderol® products improve machinery protection, reduce production stops and downtime and increase productivity and output.

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Anderol BV
Groot Egtenrayseweg 23
5928 PA Venlo
The Netherlands

www.anderol.com
info@anderol.com
+31 (0)77 396 0340

North America
+1 833 LANXESS
customer.care@lanxess.com

South & Central America
+55 19 3522 5083
atendimento.cliente@lanxess.com

Asia Pacific
+86 21 6109 6666
Orders.apac@lanxess.com

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Unless specified to the contrary, the values given have been established or standardized test specimens. The figures should be regarded as guide values and not as binding minimum values. Kindly note that the results refer exclusively to the specimens tested. Under certain conditions, the test results established can be affected to a considerable extent by the processing conditions and manufacturing process.

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