

QUALITY LUBRICATES.



Anderol® FGCS-2 HD in meat processing

Lubrication of equipment is a complex and critical part of meat and poultry processing. One of the major lubrication challenges is the stringent sanitation processes. Read how a Russian sausage factory benefits from switching to Anderol® FGCS-2 HD. anderol.com

X Anderol®

QUALITY WORKS.

LANXESS
Energizing Chemistry

MEAT PROCESSING

CHALLENGES

In such a highly regulated and competitive market as meat processing, success demands maximum productivity. However, the higher the production rate, the greater the need to grease equipment. Machine operators must choose the correct type of lubricant to withstand typical operating conditions found in meat processing plants, such as excess heat, humidity and water, as well as adopt best lubrication practices.

Moving parts rely on the consistent and correct application of lubricants to function properly. Using the incorrect grease and/or the absence of an effective lubrication program can necessitate the early replacement or repair of equipment, or at worst cause sudden failure to a machine, thus ceasing operations.

Lubrication of equipment is a complex and critical part of meat and poultry processing. Clearly defined and up to date lubrication procedures together with good training for machine operators and expert advice from your lubricant supplier is essential.

The challenge in meat processing

One of the major lubrication challenges that meat and poultry processors face is the stringent sanitation processes that use hot, high pressure water or steam combined with aggressive chemicals. These can remove essential greases from moving parts, allowing moisture and corroding chemicals to penetrate and remain in interstices of equipment where they can cause long term damage.

The excess water that equipment is exposed to due to the need for frequent wash-downs, makes it difficult for operators to maintain optimal lubrication levels. The need for frequent water spraying onto equipment reduces the effectiveness of the grease.

Corrosion is the primary cause of damage, especially if the component sits idle after cleaning. Wear can also increase due to poor lubricant film when operating.

Bearings, conveyors, grinders, mixes, rollers and packaging equipment can all sustain avoidable damage without sufficient lubrication.

Greases that withstand machine wash-downs

Water-resistant greases are recommended for use in applications where water is present as they will not only protect against corrosion, but also ensure lubrication without deterioration. One grease type that can withstand machine wash-downs is calcium sulfonate complex grease making it a possible choice for meat and poultry processing equipment.

The use of calcium sulfonate as the thickener in water-resistant grease is a proven technology and Anderol®'s calcium sulfonate complex greases offer high performance with respect to heat resistance, load carrying capacity, water resistance and shear stability.

Through many years of use, in harsh applications with water present, calcium sulfonate complex greases have demonstrated excellent performance due to their superior wet mechanical stability and resistance to water wash out.



ANDEROL® FGCS-2 HD

SUCCESS STORY

The situation

The sausage department of a Russian meat processing plant used an NLGI 2 multi-purpose synthetic aluminum complex grease to lubricate the bearings in their production lines. The main problem was that when the bearing housing was subjected to a water spray, the grease was washed out leaving the bearing insufficiently lubricated and more exposed to damage or failure.

The solution

The customer switched to **Anderol® FGCS-2 HD**, a premium calcium sulfonate complex grease. This type of grease is water resistant, has excellent mechanical stability and is formulated to resist separation under centrifugal forces. Moreover, it offers excellent rust and wear protection properties as well as load carrying ability.

The result

Since changing to **Anderol® FGCS-2 HD** the meat processor has seen a dramatic decrease in water washout which has led to a significant improvement in performance, even under high loads, and reduced maintenance costs. Importantly it is an H1 NSF registered food grade grease so complies with food safety regulations where there is potential for incidental food contact, including with greases from machine parts and equipment.

The difference in water resistance

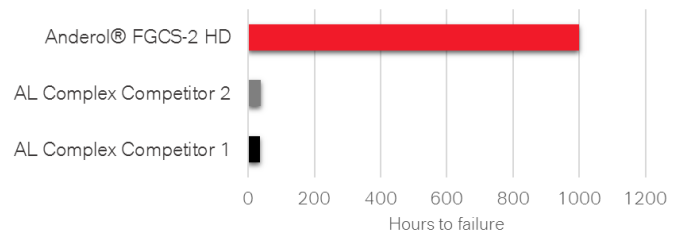
Anderol® FGCS-2 HD as well as four different aluminum complex grease competitors were tested via ASTM D1264 to determine the water wash-out resistance. This test method covers the evaluation of the resistance of a lubricating grease to washout by water from ball bearings under conditions of the test which were at 79 °C during 60 minutes.

The **Anderol® FGCS-2 HD** calcium sulfonate complex grease outperforms the aluminum complex greases.



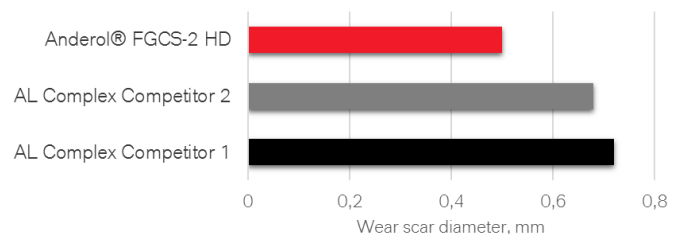
Corrosion resistance ASTM B117

salt fog test at 1 mil thickness



Antiwear properties ASTM D2266

4-ball wear (40 kg, 1200 rpm, 75°C, 60 minutes)



Grease	wt% removed
Anderol® FGCS-2 HD	0.5 %
Aluminum Complex Competitor 1	1.21 %
Aluminum Complex Competitor 2	2.07 %
Aluminum Complex Competitor 3	6.94 %
Aluminum Complex Competitor 4	3.74 %



LANXESS

Energizing Chemistry

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

This information and our technical advice – whether verbal, in writing or by way of trials – is subject to change without notice and given in good faith but without warranty or guarantee, express or implied, and this also applies where proprietary rights of third parties are involved. Our advice does not release you from the obligation to verify the information currently provided – especially that contained in our safety data and technical information sheets – and to test our products as to their suitability for the intended processes and uses. The application, use and processing of our products and the products manufactured by you on the basis of our technical advice are beyond our control and, therefore, entirely your own responsibility. Our products are sold in accordance with the current version of our General Conditions of Sale and Delivery.

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.

©2021 Anderol BV

Anderol®, LANXESS and the LANXESS logo are trademarks of LANXESS Deutschland GmbH or its affiliates. All trademarks are registered in many countries in the world.