

# Grease for Aviation Gearbox Applications

# **Product Information**

#### Krytox<sup>™</sup> Lubricants

Krytox oils and greases are based on perfluoropolyether (PFPE) oils. Krytox synthetic fluorinated lubricants are used in extreme conditions, such as continuous high temperatures up to 288 °C (550 °F) and higher temperatures for shorter periods, depending on product grade limits. Chemically inert and safe for use around hazardous chemicals, these lubricants are nonflammable and safe for use in oxygen service. Krytox oils and greases do not damage plastics or elastomers, nor cause corrosion to metals. They are commonly used as lubricants in aerospace, automotive, industrial, and semiconductor applications, as well as solving many other routine lubrication problems.

#### Krytox™ AGL 829 Grease

Krytox AGL 829 grease contains extreme pressure and anti-corrosion additives. Typical applications include those in potentially corrosive atmospheres, where vibrational or shock loading may be significant and an element will spend more time experiencing mixed film or boundary lubrication versus the desired full film or hydrodynamic lubrication. Krytox AGL 829 grease is specifically designed to lubricate gears and their associated bearings under relatively low temperature conditions.

Typical Properties	Krytox™ AGL 829
Anti-Corrosion Additive	Yes
Extreme Pressure Additive	Yes
Appearance	Yellow, Creamy Consistency
Estimated Useful Temperature Range	-60 °C (-76 °F) to 120 °C (248 °F)
Base Oil Viscosity, cSt 0 °C (32 °F) 40 °C (104 °F) 100 °C (212 °F)	590 49 7.2
Maximum Oil Volatility % in 22 hr D972 (modified) 121 °C (250 °F) 204 °C (400 °F)	2 5
Dropping Point	NA
Standard NLGI Grade	0
Specific Gravity at 0 °C (32 °F), g/cm <sup>3</sup>	2.10

This product used the developmental name of KDP 4829 before commercialization. The values in the above table are typical properties and not specifications.



#### **Typical Applications**

Applications for Krytox lubricants are generally of a critical nature. These lubricants are expected to be durable in the most aggressive environments. Temperatures in all industries are reaching extremes for conventional lubricants, and lubricants are now often considered an integral part of the design. Where failure of components is not an option, whether because of durability, warranty, safety, loss of productivity, or downtime, Krytox is the lubricant of choice in a wide range of industries and applications.

Krytox<sup>™</sup> oils and greases are silicone-free. They do not contain any VOC\* materials or chlorine, are not hazardous to the atmosphere or ozone layer, and are biologically and environmentally inert.

\*Volatile organic compounds

## **Packing the Bearing**

New, unlubricated components and bearings are typically coated with rust preventive oils to prevent damage while they are in storage before use. New components should be inspected for damage and cleanliness before use. The greases or preservative oils used in storage need to be removed before using Krytox<sup>™</sup> as a lubricant. Bearing life tests on uncleaned bearings have shown reduced life in high-temperature, high-speed tests where the bearing was filled with a minimum amount of grease. The preservatives coat the metal surface to prevent rusting; so, they can also prevent the grease from adhering, causing them to be thrown off by the action of the bearing. The preservatives will also oxidize and harden and can create debris that will contaminate the grease.

### Storage and Shelf Life

Krytox<sup>™</sup> grease and oil lubricants have an indefinite shelf life if unopened and stored in a clean, dry, and cool location.

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For product information, industry applications, technical assistance, or global distributor contacts, visit krytox.com or within the U.S. and Canada, call 1-844-773-CHEM/2436 or outside of the U.S., call 1-302-773-1000.

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