



Krytox™ XP 2C4

Performance Lubricants

Grease for Anti-Fretting Applications

Product Information

Krytox™ oils and greases are based on perfluoropolyether (PFPE) oils. These synthetic fluorinated lubricants are used in extreme conditions such as continuous high temperatures up to 300 °C (572 °F) and higher temperatures for shorter periods, depending on product grade limits. They are nonflammable and safe for use in oxygen service. They are chemically inert and used safely around hazardous chemicals. They 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™ XP 2C4 grease contains an oil soluble additive that is effective at preventing corrosion and reducing wear. It also contains a micro-powder boron nitride extreme pressure additive. 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.

Typical Applications

Krytox™ lubricants are generally used in applications of a critical nature due to extreme temperatures or aggressive environments that conventional lubricants are not able to withstand and are now often considered an integral part of the design. When failure of components is not an option 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™ oils and greases are silicone-free. They do not contain any VOC materials or chlorine and are not hazardous to the atmosphere or ozone layer. They are biologically and environmentally inert.

Typical Properties*	Krytox™ XP 2C4
Anti-Corrosion Additive	Yes
Anti-Wear Additive	Yes
Extreme Pressure Additive	Yes
Appearance	White, Creamy Consistency
Estimated Useful Temperature Range, °C (°F)	-51 to 179 (-60 to 355)
Base Oil Viscosity, cSt	
20 °C (68 °F)	177
40 °C (104 °F)	60
100 °C (212 °F)	8.4
Oil Separation, wt% at 30 hr, 99 °C (210 °F)	5
Max. Oil Volatility, % at 22 hr, D972 modified	
66 °C (150 °F)	1
121 °C (250 °F)	3
Dropping Point	N/A
Standard NLGI Grade	2
Specific Gravity, 0 °C (32 °F), g/cm ³	2.00

*These values are typical properties and not product specifications.

Packing the Bearing

New unlubricated bearings often have rust preventive oils in them to prevent damage while they are in storage before use. New bearings should be inspected for damage and cleanliness before use. The greases or preservative oils need to be removed when using Krytox™ as a lubricant. Failure to do so could result in reduced bearing life. 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. They also will oxidize and harden and can create debris that will contaminate the grease.

Storage and Shelf Life

The XP series of Krytox™ lubricants can develop an odor and a slight amber/pinkish color over time. The XP series has a three-year shelf life and a recommended maximum operating temperature of 182 °C (360 °F). Testing has shown that these products retain their anti-rust and anti-wear properties and perform well past the end of the recommended three-year shelf life. Keep product sealed and store in a cool, dry place.

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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.