Krytox™ XHT-AC and XHT-ACX
Performance Lubricants

Product Information

Krytox™ XHT-AC and XHT-ACX greases are special high temperature greases with low oil evaporation that provide anti-wear and rusting protection, and are compatible with all elastomers and plastics. These greases have excellent lubrication over a broad temperature range, but are designed to work best at temperatures over 200 °C (400 °F). Krytox™ XHT-AC series greases are nonflammable, oxygen-compatible, and chemically inert. Krytox™ greases provide extended lubrication intervals and longer equipment life.

Typical Properties of Krytox™ XHT-AC Series PFPE Grease*

	XHT-AC	XHT-ACX
Estimated Useful Range °C °F	 –20–300 –4–572	 –10–300 14–572
Base Oil Viscosity, cSt 20 °C (68 °F) 40 °C (104 °F) 100 °C (212 °F)	 1,712 500 47	 2,610 738 65
Oil Viscosity Index	149	158
Oil Pour Point °C °F	 –25 –13	 –15 5
Anti-Rust Rating, ASTM D1743	Pass	Pass
Maximum Volatility in 22 hr, % 204 °C (400 °F)	<1	<0.75
Appearance	White, creamy consistency	White, creamy consistency
Specific Gravity at 0 °C (32 °F)	1.99	1.99
Food Contact Approval	NSF H-1	NSF H-1

* This table gives typical properties (not specifications) based on historical production performance. Chemours does not make any express or implied warranty that these products will continue to have these typical properties.

The Krytox™ XHT-AC series greases are an extension of the Krytox™ 240 series and Krytox™ GPL 22X series, but are designed to give higher performance in the 204–302 °C (400–575 °F) range. Krytox™ XHT-AC series greases contain sodium nitrite to offer anti-corrosion performance. These greases should be used below 320 °C (608 °F), where the polytetrafluoroethylene (PTFE) thickener could begin to melt. The base oil is an extremely viscous oil that provides good viscosity and lower evaporation at high temperatures.

Krytox™ grease is made to a standard NLGI grade 2. PTFE is the standard thickener.

Typical Applications

Applications for these lubricants are generally of a critical nature, such as when temperatures reach extremes that conventional lubricants cannot handle. Krytox™ XHT-AC and XHT-ACX greases are expected to be durable in highly aggressive environments. Where failure of components is not an option, because of durability, warranty, safety, loss of productivity, or downtime, Krytox™ lubricants are the ideal choice in a wide range of industries and applications.

Typical applications for Krytox™ XHT-AC and XHT-ACX include:

- Paint plant conveyor bearings
- Corrugator and paper machine bearings
- Aluminum can manufacturing bearings
- Welding machines
- High temperature fans
- Textile equipment
- Tenter frames
- High temperature ovens
- Conveyor systems in glass and aluminum plants
- Textile calender roll bearings
- Brick kiln car bearings
- Valve lubrication
- Ventilation fan bearing grease
- Rod mills

Chemours™

Krytox™ PFPE Oils and Greases

Perfluoropolyether (PFPE) oils are clear, colorless, fluorinated synthetic oils that are non-reactive, nonflammable, safe in chemical and oxygen service, and long lasting. Krytox™ oil is a PFPE—also called perfluoroalkylether (PFAE) or perfluoropolyalkylether (PFPAE)—with the following chemical structure:

$$F\text{-}(\underset{\displaystyle CF_3}{\underset{|}{CF}}\text{-}CF_2\text{-}O)_n\text{-}CF_2CF_3 \qquad \text{where } n = 10\text{–}60$$

The polymer chain is completely saturated and contains only carbon, oxygen, and fluorine. On a weight basis, a typical Krytox™ oil contains 21.6% carbon, 9.4% oxygen, and 69.0% fluorine.

Compatibility with Metals

Because of their low surface tensions, Krytox™ lubricants easily wet metallic surfaces. Krytox™ lubricants are chemically inert and, therefore, have no adverse effect on metals when the temperature is below 288 °C (550 °F). Above 288 °C (550 °F), many alloy steels, stainless steels, and other metals, such as aluminum alloy, titanium alloy, nickel alloy, and cobalt alloy, can be used with Krytox™ lubricants.

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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