



Krytox™ XHT-S and XHT-SX

Performance Lubricants

Product Information

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

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

| | XHT-S | XHT-SX |
|---|---------------------------|---------------------------|
| Estimated Useful Range | | |
| °C | -20-300 | -10-300 |
| °F | -4-572 | 14-572 |
| Base Oil Viscosity, cSt | | |
| 20 °C (68 °F) | 1,712 | 2,610 |
| 40 °C (104 °F) | 500 | 738 |
| 100 °C (212 °F) | 47 | 65 |
| Oil Viscosity Index | 149 | 158 |
| Oil Pour Point | | |
| °C | -25 | -15 |
| °F | -13 | 5 |
| Vapor Pressure, torr | | |
| 20 °C (68 °F) (Knudsen) | $\leq 1 \times 10^{-9}$ | $\leq 3 \times 10^{-14}$ |
| 100 °C (212 °F) (Knudsen) | $\leq 8 \times 10^{-7}$ | $\leq 1 \times 10^{-9}$ |
| 200 °C (392 °F) (Knudsen) | $\leq 1 \times 10^{-4}$ | $\leq 2 \times 10^{-6}$ |
| 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 | None | 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-S series greases are an extension of the Krytox™ GPL 240 series and Krytox™ GPL 20X series, but are designed to give higher performance in the 204–302 °C (400–575 °F) range. Krytox™ XHT-S series 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™ XHT-S series greases contain no additives, so they are used when a potential for interaction between process chemicals and grease additives exists.

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

Typical Applications

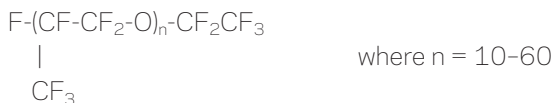
Applications for these lubricants are generally of a critical nature, such as when temperatures reach extremes that conventional lubricants cannot handle. Krytox™ XHT-S and XHT-SX greases are expected to be durable in highly aggressive environments. Where failure of components is not an option, because 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-S and XHT-SX 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
- Valves

Krytox™ PFPE Oils and Greases

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



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.

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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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