

DuPont™ Krytox® XHT-S Grease and DuPont™ Krytox® XHT-SX Grease

Product Data

DuPont™ Krytox® XHT-S grease and DuPont™ Krytox® XHT-SX grease 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 and SX greases are nonflammable, oxygen compatible, and chemically inert, and they provide extended lubrication intervals and longer equipment life.

Typical Properties of 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		
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, 0 °C (32 °F)	1.99	1.99

The Krytox® XHT-S and XHT-SX grease series is an extension of the Krytox® GPL 240 series and the Krytox® GPL 20X series, but the Krytox® XHT-S and XHT-SX greases are designed to give higher performance in the 204 - 302 °C (400 - 575 °F) ranges. The Krytox® XHT-S and XHT-SX greases should be used below 320 °C (608 °F), where the 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 and XHT-SX greases contain no additives, so they are used where a potential for interaction between process chemicals and grease additives exists.

Grease is made to a standard NLGI[†] grade 2. PTFE is the standard thickener.

Typical applications 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 calendar roll bearings, brick kiln car bearings, valve lubrication, ventilation fan bearing grease, rod mills, and valves.

Applications for these lubricants are generally of a critical nature, such as where 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 whether because of durability, warranty, safety, loss of productivity or down time, Krytox® lubricants are the ideal choice in a wide range of industries and applications.



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

† NLGI=National Lubricating Grease Institute

DuPont™ Krytox® PFPE Oils and Greases

Perfluoropolyether (PFPE) oils are clear, colorless, fluorinated synthetic oils. These oils are nonreactive, nonflammable, safe in oxygen service and are 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.

For more information or for technical assistance, please call us at 1-800-424-7502 or contact us at krytox@usa.dupont.com

For international sales and support contacts, visit us at www.lubricants.dupont.com

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