



Krytox™ Performance Lubricants

Special Extreme Pressure and Anti-Corrosion Greases

Product Information

Krytox™ GPL 294-297 and Krytox™ XHT-EP298-299 have been formulated for high-temperature applications that need both high load carrying capacity and anti-corrosion protection. Typical applications include

conveyor chains that are subjected to moist conditions or frequent temperature cycling that could allow condensation and rusting to occur.

Typical Properties

Property	Krytox™ Grade					
	GPL 294	GPL 295	GPL 296	GPL 297	XHT-EP298	XHT-EP299
ISO Grade of Base Oil	68	150	220	460	680	1000
Estimated Useful Temperature Range, °C (°F)	-51 to 179 (-60 to 355)	-36 to 204 (-33 to 400)	-36 to 260 (-33 to 500)	-30 to 288 (-22 to 550)	-15 to 294 (-5 to 560)	-5 to 300 (-23 to 572)
Oil Viscosity, cSt						
20 °C (68 °F)	180	550	810	1600	2560	3500
40 °C (104 °F)	60	160	240	440	738	1005
100 °C (212 °F)	9	18	25	42	65	85
Oil Viscosity Index	124	125	134	155	158	179
Base Oil Pour Point, °C (°F)	-51 (-60)	-36 (-33)	-36 (-33)	-30 (-22)	-15 (-5)	-5 (-23)

Note: Krytox™ GPL 295 has also been called TLF 8923. Krytox™ GPL 297 has been tested as TLF 8945.

In testing, the Krytox™ 29X series shows improvement in load carrying and wear prevention over standard Krytox™ greases.

Typical Performance

Krytox™ Grade	Pin and Vee Block Test	Block on Ring Wear Test	ASTM D3336 Bearing Life Test
GPL 225	4,500 lb load = 37 in-lb torque	0.70 mm wear scar	Greater than 3200 hr at 177 °C (350 °F) and 10,000 rpm
GPL 295	4,500 lb load = 30 in-lb torque	0.55 mm wear scar	Greater than 2500 hr at 177 °C (350 °F) and 10,000 rpm
Timken EP tests were run on the following Krytox™ greases by ASTM D2509:			
Krytox™ Grade	OK Load, lb ¹	Score Load, lb ²	Scar Width at OK Load, mm ³
GPL 215	30	40	1.507
GPL 225	50	60	1.109
GPL 295	60	70	1.125

¹The OK load is the maximum load added to the system at which no scoring or seizure occurs. This load reflects the load carrying capability of the lubricant.

²The score load is the minimum load added to the system at which scoring or seizure occurs.

³The scar width is the average scar width at the load corresponding to the OK load value.

Krytox™ GPL 577 is formulated with a high-viscosity base oil and special additives. This results in a grease that can withstand extreme conditions of temperature and load.

The high viscosity of the base oil combined with the additives yields a product that is able to maintain a good lubricating film in very slow speed or high load applications. The high base oil viscosity also results in a

grease that evaporates very slowly under conditions of high vacuum or temperature. Like all standard Krytox™ products, Krytox™ GPL 577 is nonflammable and compatible with oxygen, and will not react with most chemicals. Consult our “Krytox™ Oil and Grease General Overview” for more information.

Product Properties of Krytox™ GPL 577 Grease

Typical Properties	Value
Oil Viscosity, cSt, 40 °C (104 °F)	500
Pour Point, °C (°F)	-25 (-4)
Useful Temperature Range, °C (°F)	35-300 (95-570)
Viscosity Index	149
Oil Density, g/mL	1.95
Penetration	265-295
Mechanical Stability (100,000 times)	<330
Oil Separation (FTMS 791B 321.1: 99 °C [210 °F], 30 hr)	<1.5%
Max. Oil Volatility (D972 modified: 99 °C [210 °F], 22 hr)	<1%
Grease 4 Ball Wear Test (ASTM D4172: 107 °C (225 °F), 20 kg, 1200 rpm, 60 min)	
Wear Scar, mm (0.01)	0.6
Friction Coefficient (0.003)	0.12

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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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