

DuPont™ Krytox®

performance lubricants

Special Extreme Pressure and Anticorrosion Greases

Krytox® GPL 294–297 and 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

	GPL 294	GPL 295	GPL 296	GPL 297	XHT-EP298	XHT-EP299
ISO Grade of Base Oil	68	150	220	460	720	1000
Estimated Useful Range						
°C	–51–179	–36–204	–36–260	–30–288	–15–294	–5–300
°F	–60–355	–33–400	–33–500	–22–550	–5–560	–23–572
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	166
Base Oil Pour Point						
°C	–51	–36	–36	–30	–15	–5
°F	–60	–33	–33	–22	–5	23

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

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

Typical Performance

	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:

	OK Load	Score Load	Scar Width at OK Load
GPL 215	30 lb	40 lb	1.507 mm
GPL 225	50 lb	60 lb	1.109 mm
GPL 295	60 lb	70 lb	1.125 mm

The 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.

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

The 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, GPL 577 is nonflammable, compatible with oxygen, and will not react with most chemicals. Consult our “Krytox® Oil and Grease General Overview” for more information.

Typical Properties of Krytox® GPL 577

Oil Viscosity, 40°C (104°F)	500 cSt
Pour Point	-20°C (-4°F)
Useful Temperature Range	35–300°C (95–570°F)
Viscosity Index	149
Oil Density	1.95 g/mL
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

For more information or technical assistance, call:

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<http://www.krytox.com>

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