



Krytox™ FPG 182

Performance Lubricants

Rust Preventive, High Performance, Wide Temperature Grease

Product Information

Krytox™ FPG 182 is a smooth, buttery white grease. It has been specifically developed to operate over a wide temperature service range and in extreme chemical and vacuum conditions. It has exceptional performance as shown by its bearing life test that has over 7 times the life of similar products. It is a perfluoropolyether (PFPE)-based grease

thickened with a special high performance PTFE thickener, and has exceptional chemical and oxygen resistance. It is designed to operate under severe conditions, and can be used for bearings, gears, and as a lubricant for O-rings and elastomers.

Properties of Krytox™ FPG 182

Property	Analysis	Method
Penetration at 25 °C (77 °F), mm ⁻¹		D217
Unworked	305	
Worked, 60 strokes	303	
Cone Oil Separation, 30 hr, 204 °C (399 °F), wt %	13	ASTM D6184
Rust Prevention	Pass	ASTM D1743
Copper Strip Corrosion	1b	FTM 5309
Four-Ball Wear Test, mm, 1200 rpm, 40 kgf load, 1 hr, 75 °C (167 °F)	1.33	ASTM D2266
Use Range	-80 °C (-112 °F) to 210 °C (410 °F)	
Four-Ball Extreme Pressure Weld	800+ kg	ASTM D2596
Vacuum Stability Test, 24 hr, 125 °C (257 °F), 10 ⁻⁶ torr		ASTM E595
Total Weight Loss (TWL), wt%	0.070	
Volatile Condensable Material (VCM), wt%	0.027	
Low Temperature Torque, g-cm		ASTM D1478
at -62 °C (-80 °F)		
Starting	1070	
Running, 1 hr	507	
at -73 °C (-99 °F)		
Starting	3250	
Running, 1 hr	1141	
LOX Impact Sensitivity, 100 mm, 20 drops	Pass	ASTM D2512
Evaporation Loss, % wt, 22 hr, 204 °C (399 °F)	0.07	ASTM D2595
Foreign Particles, Micron Range		FTM 3005
25-74 micron	45	
75 microns or larger	0	

continued

Properties of Krytox™ FPG 182 (continued)

Property	Analysis	Method
Bearing Life, 10,000 rpm, 204 °C (399 °F)	5400+ hr	ASTM D3336
SRV Wear, 50 Hz, 200N, 50C, 120 min	699 µm ball scar/0.084 Friction coefficient	ASTM D5707
Wear at 5000 Cycles, 150 lb Load, mm	1.03	ASTM D2714 (mod)
Density, g/mL at 20 °C (68 °F)	1.94	
Base Oil Characteristics		
Kinematic Viscosity, cSt		ASTM D445
at 40 °C (104 °F)	138	
at 100 °C (212 °F)	37.57	
at -54 °C (-65 °F)	9256	
Viscosity Index	313	ASTM D2270
Pour Point	-72 °C (-98 °F)	ASTM D97
Vapor Pressure, torr, 20 °C (68 °F)	8×10^{-11}	

Storage and Handling

Shelf life: Indefinite shelf life in unopened container. It is normal for oil to separate from grease during storage. Before use, knead tubes or stir larger containers to remix.

This information is not intended to provide guidance in selecting the appropriate product for your application. To ensure the best product for your application please contact our Technical Service Department at 1-800-992-2424 (in Canada please call 1-800-323-4621).

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