

# 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 <sup>-1</sup> Unworked Worked, 60 strokes	305 303	D217
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 <sup>-6</sup> torr Total Weight Loss (TWL), wt% Volatile Condensable Material (VCM), wt%	0.070 0.027	ASTM E595
Low Temperature Torque, g-cm at -62 °C (-80 °F) Starting Running, 1 hr at -73 °C (-99 °F) Starting Running, 1 hr	1070 507 3250 1141	ASTM D1478
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 25–74 micron 75 microns or larger	45 0	FTM 3005

continued



#### Properties of Krytox<sup>™</sup> 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 at 40 °C (104 °F) at 100 °C (212 °F) at -54 °C (-65 °F)	138 37.57 9256	ASTM D445
Viscosity Index	313	ASTM D2270
Pour Point	−72 °C (−98 °F)	ASTM D97
Vapor Pressure, torr, 20 °C (68 °F)	8 x 10 <sup>-11</sup>	

## 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.

#### **Product Package**

Krytox™ FPG 182 is available in 50 and 100 g syringes, 8 oz tubes, and 1.76 lb cartridges.



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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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