



Castrol Braycote 804

Grease, Aircraft and Instrument
Fuel and Oxidizer Resistant

Description

Castrol Braycote 804 is a smooth, buttery, translucent white NLGI #1 grease, based on a perfluoropolyether base oil. It is thermally stable, nonflammable, chemically inert to commonly used fuels, solvents, corrosive chemicals and oxidizers. Castrol Fluoroclean™ X100 or Castrol Fluoroclean™ HE can be used to remove this lubricant. Refer to the data sheets for information regarding these products.

Application

Braycote 804 is designed for static and dynamic lubrication of taper plug valves, gaskets and bearings in fuel systems of aircraft and ground support equipment. It is also suitable for use in the presence of oxygen (LOX/GOX) and other highly oxidative materials as a lubricant for valves, threads, and bearings in aerospace vehicles and supporting equipment. Perfluorinated greases, in general, exhibit excellent shelf lives due to their intrinsic inertness.

Typical Characteristics

TEST (ASTM)	DESCRIPTION	RESULT
D 1403	Penetration @ 25°C (77°F), mm ⁻¹	
	Unworked	322
	Worked, 60 strokes	323
FTM 5309	Copper Strip Corrosion 24 hrs @ 100°C (212°F)	1b
D 2595	Evaporation Loss, % wt 22 hrs @ 149°C (300°F)	10
FTM 5414	Resistance to Fuel	Pass
	Solubility in Fuel, % wt	0
FTM 5415	Resistance to Aqueous Solutions	
	Distilled Water	Pass
	Distilled Water/Alcohol	Pass
D 942	Film Stability and Corrosion Steel, 7 days, 100°C (212°F)	Pass
D 2512	LOX Impact Sensitivity 20 drops, 1100 mm	Pass
D 2266	Four-Ball Wear-Test, AWSD, mm 1200 rpm, 40 kgf, 1 hr, 75°C (167°F)	0.28

Base Oil Information:

Knudsen	Vapor Pressure, torr	
	@ 20°C (68°F)	1 x 10 ⁻⁵
	@ 100°C (212°F)	1 x 10 ⁻³
D 445	Kinematic Viscosity, cSt	
	@20°C (68°F)	55
	@40°C (104°F)	24
D 2270	Viscosity Index	65
D 97	Pour Point, °C (°F)	-45 (-49)

Additional Information

Temperature Range

-54°C to 149°C (-65°F to 300°F).

Compatibility

Braycote 804 is compatible with all commonly used plastic, elastomer and metallic materials of construction. It may be adversely affected by Lewis Acids such as aluminum chloride, at elevated temperatures. Rubbing surfaces of aluminum, magnesium or titanium alloys may react with Braycote 804 under certain conditions. Such systems should be thoroughly evaluated. Surfaces must be well cleaned of organic rust inhibitors prior to grease application to insure proper lubrication.

Packaging

Braycote 804 is available in 2 ounce (AVDP) disposable plastic syringes, 1 pound jars, 30 cc fuel kits and 35 pound pails.

Specification

Braycote 804 meets the requirements of and is qualified to MIL-PRF-27617F, Type I.

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