

Castrol Braycote 806

Grease, Aircraft and Instrument
Fuel and Oxidizer Resistant

Description

Castrol Braycote 806 is a smooth, buttery, translucent white NLGI #2 grease based on a perfluoroether base oil. It is thermally stable, nonflammable, and chemically inert to commonly used fuels, solvents 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 806 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) as a lubricant for valves, threads, and bearings in aerospace vehicles and supporting equipment. Perfluorinated greases, such as Braycote 806, exhibit excellent shelf lives due to their inertness.

Typical Characteristics

TEST (ASTM)	DESCRIPTION	RESULT
D 1403	Penetration, 25°C (77°F), mm ⁻¹	
	Unworked	280
	Worked, 60 strokes	280
FTM 5309	Copper Strip Corrosion 24 hrs @ 100°C (212°F)	1b
D 2595	Evaporation Loss, % wt 22 hrs @ 204°C (400°F)	1.6
FTM 321	Oil Separation, % wt 30 hrs @ 204°C (400°F)	8.98
FTM 5414	Solubility in Fuel, % wt	6.5
	Resistance to Fuel	Pass
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 3336	High Temperature Performance 10,000 rpm, 204°C (400°F), hrs	>500
Spec	Storage Stability 8 months @ 38°C (100°F)	Pass
D 2266	Four-Ball Wear-Test, AWSD, mm 1200 rpm, 40 kgf, 75°C (167°F), 1 hr	0.55

Base Oil Information:

D 287	Specific Gravity @ 20/20°C (68/68°F)	1.94
D 445	Kinematic Viscosity, cSt	
	@ 99°C (210°F)	11.6
	@ 38°C (100°F)	97
	@ 20°C (68°F)	490
D 2270	Viscosity Index	117
D 97	Pour Point, °C (°F)	-30 (-22)
Knudsen	Vapor Pressure, torr	
	@ 20°C (68°F)	<9 x 10 ⁻⁷
	@ 100°C (212°F)	<9 x 10 ⁻⁴

Additional Information

Temperature Range

-30°C to above 204°C (-22°F to above 400°F).

Compatibility

Braycote 806 is compatible with all commonly utilized metals, plastics and elastomers. It may be adversely affected by Lewis Acids catalysts, such as aluminum chloride, at elevated temperatures. Newly exposed rubbing surfaces of aluminum, magnesium or titanium alloys under certain conditions may react with Braycote 806. Such systems should be thoroughly evaluated. Surfaces must be well cleaned of organic rust inhibitors prior to grease application to ensure proper lubrication.

Packaging

Braycote 806 is available in 2 ounce (AVDP) disposable plastic syringes, 24/8 oz tube cases and 1 pound plastic containers.

Specification

Braycote 806 meets the requirements of and is qualified under MIL-PRF-27617F, Type III.

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