



Brayco 1720 Plus Series

Perfluoroether Lubricant Gear, Pump and Lubricating Oil

Description

Castrol Brayco™ 1720 Plus series oils are clear, colorless low molecular weight perfluoroether oils with added corrosion preventative. The oils are chemically inert to virtually all chemicals, and safe to use in direct contact with oxidants such as LOX/ GOX and chlorine. Castrol Brayco™ 1720 Plus series oils are nonflammable and non-toxic. Castrol Fluoroclean™ X100 and Castrol Fluoroclean™ HE can be used to clean this product. Refer to the data sheets for Castrol Fluoroclean™ X100 and Castrol Fluoroclean™ HE for information regarding these products.

Application

Castrol Brayco™ 1720 Plus series oils are intended for use as gear, pump, and lubricating oils where direct or indirect contact with aggressive chemicals, oxidants, and where low temperatures are routine. The Castrol Brayco™ 1720 Plus series oils can also be used as vacuum pump oils in operations requiring vapor pressures as low as 10⁻⁴ torr. Castrol Brayco™ 1720 Plus series oils offer special corrosion protection to iron, copper and a variety of metals. Perfluorinated fluids, in general, exhibit excellent shelf lives due to their intrinsic inertness.

Typical Characteristics

Name	Method	Units	1721 +	1723 +	1724 +
Specific Gravity @ 15°C / 59°F	ISO 3675 / ASTM D1298	-	1.865	1.89	1.901
Density of finished grease @ 15°C / 59°F	In-house test	lb/gallon	15.55	15.74	15.82
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm ² /s	1.64	5.45	9.62
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm ² /s	6.34	32.4	70.2
Kinematic Viscosity @ -40°C / -40°F	ISO 3104 / ASTM D445	mm ² /s	2,800	100,000	-
Kinematic Viscosity @ -54°C / -65°F	ISO 3104 / ASTM D445	mm ² /s	55,000	-	-
Viscosity Index	ISO 2909 / ASTM D2270	-	-	102	116
Pour Point	ISO 3016 / ASTM D97	°C/°F	-69 / -95	-51 / -60	-42 / -45
Evaporation Loss (22 hrs @ 60°C / 140°F)	ASTM D972	% wt	5.5	0.58	0.49
Evaporation Loss (22 hrs @ 120°C / 248°F)	ASTM D972	% wt	95	14	18
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 600 rpm / 2 hrs)	ASTM D2266	mm	0.68	0.38	0.62
Four Ball Weld Load test - Weld Point	ASTM D2783	kgf	315	315	315
Four Ball Weld Load test - Load Wear Index	ASTM D2783	kgf	75	85	95
Knudsen Vapour Pressure @ 100°C / 212°F	-	Pa	13.3	13.3	13.3
Knudsen Vapour Pressure @ 20°C / 68°F	-	Pa	13.3	13.3	1.33
Surface Tension	ASTM D1331	N/m	0.0000019	0.0000021	0.0000021

Subject to usual manufacturing tolerances.

Additional Information

Temperature Range

- Castrol Brayco™ 1721+ -54°C to 93°C (-65°F to 200°F)
- Castrol Brayco™ 1723+ -34°C to 163°C (-30°F to 325°F)
- Castrol Brayco™ 1724+ -20°C to 177°C (-20°F to 350°F)

Limitations

Castrol Brayco™ 1720 Plus series oils are compatible with all commonly utilized materials, plastics, and elastomers. Castrol Brayco™ 1720 Plus series oils may be adversely affected by Lewis Acid Catalysts such as AlCl₃ at elevated temperatures. Newly exposed rubbing surfaces of aluminum, magnesium and titanium may react with Castrol Brayco™ 1720 Plus series oils under certain conditions. Such systems should be thoroughly evaluated. Surfaces must be well cleaned of organic rust inhibitors prior to oil application to insure proper lubrication.

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