

Castrol Brayco Micronic 882

Hydraulic Fluid, Fire Resistant
Synthetic Hydrocarbon Base

Description

Castrol Brayco™ Micronic 882 is a red colored synthetic hydrocarbon hydraulic fluid ISO viscosity Grade 15 for aircraft, ordnance, and industrial use. It contains no VI improvers and, unlike conventional hydraulic fluids, is not subject to polymer breakdown under high shear conditions. It can be used as a replacement and make-up oil for MIL-PRF-5606, and it is also compatible with MIL-PRF-6083 in all proportions. Brayco Micronic 882 has a high flash and fire point, exceptionally high auto ignition point, and very low flame propagation. Its properties also include controlled rubber swell for long seal life, low foaming, excellent anti-wear, and good corrosion and oxidation stability.

Application

Brayco Micronic 882 is primarily designed as a fire resistant hydraulic fluid for aircraft and missile use, but also has many industrial applications where fire and fluid toxicity are a hazard. Brayco Micronic 882 is a direct replacement for MIL-PRF-5606.

Typical Characteristics

TEST METHOD	DESCRIPTION	MIL-PRF-83282D REQUIREMENTS	RESULT
D 1298	API Gravity, degrees	---	36.5
Table 3	Specific Gravity @ 16/16°C (60/60°F)	Report	0.841
Table 8	Pounds per Gallon @ 16°C (60°F)	---	7.03
D 1298	Specific Gravity Variance	0.008 Maximum	0.001
D 445	Kinematic Viscosity, cSt		
	@ 205°C (400°F)	1.0 Minimum	1.1
	@ 100°C (212°F)	3.45 Minimum	3.57
	@ 40°C (104°F)	14.0 Minimum	14.6
	@ -40°C (-40°F)	2200 Maximum	2100
	@ -54°C (-65°F)		12,230
D 97	Pour Point, °C (°F)	-55 (-67) Maximum	-63 (-80)
D 92	Flash Point, COC, °C (°F)	205 (401) Minimum	224 (435)
D 92	Fire Point, COC, °C (°F)	245 (473) Minimum	250 (480)
D 664	Neutralization Number, mgKOH/g	0.10 Maximum	0.014
FTM 350	Evaporation Loss, % wt 6.5 hrs @ 205 °C (400°F)	20.0 Maximum	11.35
FTM 3458	Low Temperature Stability 72 hrs @ -40°C (-40°F)	No gelling, clouding, crystallization, solidification or separation	Pass
D 892	Foam, Sequence I		
	Tendency, ml Stability, ml	85 ml maximum 0	10 0
D 1744	Water by KFR, ppm	100 Maximum	41
FTM 352	Evaporation Effect on Wick Flammability	10 cycles Minimum	15

TEST METHOD	DESCRIPTION	MIL-PRF-83282D REQUIREMENTS	RESULT
D 4172	Lubricity, AWSD, mm @ 1 kg load @ 10 kg load @ 40 kg load	0.21 Maximum 0.30 Maximum 0.65 Maximum	0.15 0.25 0.5
FTM 3009	Solid Particle Contamination per 100 mL Autocount 5 - 15 Microns 15 - 25 Microns 25- 50 Microns 50- 100 Microns 100 + Microns	10,000 Maximum 1,000 Maximum 150 Maximum 20 Maximum 5 Maximum	2500 103 32 5 0
D 4898(spec) FTM 3009 (spec)	Gravimetric Residue, mg per 100 mL Filtering Time, minutes	0.3 Maximum 15 Maximum	0.12 9
D2270	Viscosity Index	---	129

Subject to usual manufacturing tolerances.

Additional Information

Temperature Range

Brayco Micronic 882 is designed to operate over the temperature range of -40°C to 205°C (-40°F to 401°F)

Specification

Brayco Micronic 882 meets all requirements and is qualified under military specification MIL-PRF-83282D, Amendment 1.

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