

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 | 65 ml maximum | 10 |
| | Stability, ml | 0 | 0 |
| D 1744 | Water by KFR, ppm | 100 Maximum | 41 |
| FTM 352 | Evaporation Effect on Wick Flammability | 10 cycles Minimum | 15 |

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|---------------------------------|---|---|-----------------------------|
| 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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