



MIL-PRF-83282D(1) RADCOLUBE® FR282



RADCOLUBE® FR282

HYDRAULIC FLUID, FIRE RESISTANT, SYNTHETIC
HYDROCARBON BASE, METRIC

Synthetic, fire resistant hydraulic fluid consisting
of synthetic hydrocarbon base oils and additives.



NATO Code: H-537

Qualification Number: NAWCADPAX Itr 4123
Ser 434200A/10.0040

Qualification Date: 28 June 2010

ISO 9001:2015 Certification No: C2021-00038

Shelf Life: 72 Months from DOM

Manufactured: LaFox, IL 60147 | Cage: 1RVC4

NATIONAL STOCK NUMBERS (NSN)

| | |
|------------------|----------------|
| 9150-00-149-7431 | Quart |
| 9150-00-149-7432 | Gallon |
| 9150-01-009-7709 | 10 Gallon Drum |
| 9150-00-180-6290 | 55 Gallon Drum |

5 Gallon Pails Available Upon Request



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| CHARACTERISTICS | TEST LIMITS | TYPICAL RESULTS | TEST METHOD |
|--|---|---|-----------------|
| Auto-ignition Temperature | 345°C, min | 370 | ASTM E659 |
| Barium Content | 10 parts/million (ppm), max | 0.78 | ASTM D5185 |
| Bulk modulus at 40°C Isothermal secant 0 to 6.9 x 10 ⁴ kPa | 1.379 x 10 ⁶ kPa, min | 1.693 x 10 ⁶ | Paragraph 4.4.1 |
| Concentration of red dye | Conform | Conforms | MIL-SPEC |
| Compatibility of Oils | Pass | Pass | Paragraph 4.4.3 |
| Corrosiveness and oxidation stability Change in weight of metal specimens Aluminum alloy Magnesium alloy Cadmium-plated steel Steel Copper No pitting, etching, nor visible corrosion No evidence of separation/gumming of fluid Change in viscosity at 40°C Increase in neutralization number | 0.2 mg/cm ² , max 0.2 mg/cm ² , max 0.2 mg/cm ² , max 0.2 mg/cm ² , max 0.6 mg/cm ² , max (No .3 max) Pass Pass 10 percent, max 0.2, max | 0.008 0 -0.031 0 0.008 (No. 1b - 2a) Pass Pass 0.27% 0.01 | ASTM D4636 |
| Evaporation | 20.0 percent by weight, max | 17.75% | FTM 350 |
| Fire point | 245°C, min | 251 | ASTM D92 |
| Flame Propagation | 0.30 cm/second, max | 0.172 | ASTM D5306 |
| Wick flammability | 10 cycles, min | >1,050 | FTM 352 |
| Flash point | 205°C, min | 221 | ASTM D92 |
| Foaming characteristics at 25°C At end of 5 minute blowing period After settling 10 minutes | 65 mL, max Complete collapse | 0 Complete collapse | ASTM D892 |
| High temperature high pressure spray ignition | Pass | Pass | FTM 6052 |
| High temperature stability Viscosity change at 40°C Neutralization number change Appearance | 5%, max 0.1, max Pass | 4.75% 0.00 Pass | Paragraph 4.4.4 |
| Low temperature stability 72 hours -40±1°C | Pass | Pass | FTM 3458 |
| Lubricity, 10 ±0.5 mL sample Under a 1 kilogram (kg) load Under a 10 kg load Under a 40 kg load | scar diameter 0.21 mm, max 0.30 mm, max 0.65 mm, max | 0.20 0.23 0.46 | ASTM D4172 |



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| Neutralization number, mgKOH/g | 0.10, max | 0.08 | ASTM D664 |
| Pour point | -55°C, max | -69 | ASTM D97 |
| Filtration time | 15 minutes, max | 8.5 | FTM 3009 |
| Gravimetric analysis | 0.3 mg, max | 0.05 | ASTM D4898 |
| Specific gravity at 15.6°C/15.6°C | Report | 0.838 | ASTM D1298 |
| Storage stability after 12 months of storage | Pass | Pass | FTM 3465 |
| Swelling of synthetic rubber, NBR-L | 18.0 to 30.0% | 18.98% | FTM 3603 |
| Viscosity at 205°C, cSt | 1.0 cSt, min | 1.085 | ASTM D445 |
| Viscosity at 100°C, cSt | 3.45 cSt, min | 3.63 | ASTM D445 |
| Viscosity at 40°C, cSt | 14.0 cSt, min | 15.0 | ASTM D445 |
| Viscosity at -40°C, cSt | 2,200 cSt, max | 2,089 | ASTM D445 |
| Water content | 100 ppm, max | 27 | ASTM D1744 |
| Workmanship | Pass | Pass | ISO 9001:2015 |