MIL-PRF-87252F
RADCOLUBE® 500M

RADCOLUBE® 500M
COOLANT FLUID, HYDROLYTICALLY STABLE, DIELECTRIC

Dielectric/cooling fluid consisting of a synthetic hydrocarbon base oil and additives; designed for safe use in land and airborne closed loop cooling systems.

NATO Code: S-1748

Qualification Number: AFPET/PTPS 24-013

Qualification Date: 8 August 2024

ISO 9001:2015 Certification No: C2024-00254

Shelf Life: 24 Months from DOM

Manufactured: LaFox, IL 60147 | Cage: 1RVC4

NATIONAL STOCK NUMBERS (NSN)	
9150-01-306-2475	Quart
9150-01-336-7174	Oblong Gallon
9150-01-304-0885	Gallon
9150-01-306-2470	55 Gallon Drum

5 Gallon Pails Available Upon Request

RADCO INDUSTRIES, INC.

TECHNICAL DATA SHEET FOR RADCOLUBE® 500M COOLANT FLUID

MIL-PRF-87252F COOLANT FLUID, HYDROLYTICALLY STABLE, DIELECTRIC

CHARACTERISTICS	REQUIREMENT	RESULTS	TEST METHOD
Acid number, mg KOH/g	0.20 max	0.02	ASTM D664
Compatibility	Pass	Pass	MIL-PRF-87257F paragraph 4.4.2
Corrosiveness and oxidation stability, 168 hours at 121°C			ASTM D4636 Procedure 2
Change in acid number, mg KOH/g	0.5 max	0.06	
Percent change in viscosity at 40°C	5% max	0.9%	
Metal specimen weight change, mg/cm^2			
1010 Steel	± 0.2	0.02	
Aluminum	± 0.2	0.01	
Magnesium	± 0.2	0.02	
Cadmium plated steel	± 0.2	-0.01	
Copper	± 0.4	0.02	
ASTM D130 Copper Color	No. 3a max	2e	
Separation of insoluble materials or gumming of the fluid	None	None	
Dielectric strength, kV	35 min	37	ASTM D877
Flash point, °C	150 min	166	ASTM D92
Fire point, °C	160 min	176	ASTM D92
High-temperature stability, 100 hours at 200°C	Pass	Pass	MIL-PRF-87257F paragraph 4.4.3
Change in acid number, mg KOH/g	0.25 max	0.02	
Percent change in viscosity at 40 °C	± 5% max	0.26%	
Formation of Precipitate or Insoluble Material	None	None	
Solid particle contamination			MIL-PRF-87252F paragraph 4.4.1
SAE AS4059 Contamination Class	Class 5 max	5	FED-STD-791 Method 3012 (ISO 11500)
SAE AS4059 Particle Size Ranges, micrometers (µm), cummulative			FED-STD-791 Method 3012 (ISO 11500)
5 to 15 (6 to 14 (c))	8000 max	978	
16 to 25 (15 to 21 (c))	1425 max	122	
26 to 50 (22 to 38 (c))	253 max	31	
51 to 100 (39 to 70 (c))	45 max	27	
> 100	8 max	0	
Resistivity at 25°C, ohm-cm	1.0 x 10^{10} min	474.3 x 10^{12}	ASTM D1169
Rubber swell, standard synthetic rubber, NBR-L, percent change in volume	0.0 - 10.0%	6.5%	ASTM D4289
Storage stability (24°C ± 3°C for 12 months)	Pass	Pass	MIL-PRF-87252F paragraph 4.4.5
Water, mg/kg (ppm)	50 max	36	ASTM D6304
Workmanship	Pass	Pass	MIL-PRF-87252F paragraph 3.4
Viscosity, mm^2/s (cSt)			
at -54°C, 1.5 hours	1300 max	1022	ASTM D2532
at -54°C, 3 hours	1300 max	1027	ASTM D2532
at -54°C, 72 hours	1300 max	1033	ASTM D2532
at -40°C	300 max	258	ASTM D445
at 40°C	5.0 min	5.1	ASTM D445
at 100°C	1.65 min	1.68	ASTM D445

RADCO INDUSTRIES, INC. 700 KINGSLAND DRIVE, BATAVIA, IL 60510, CAGE CODE 6ZS16
Phone: (630) 232-7966 -- FAX: (630) 232-7968
www.Radcoind.com

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