



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/PTPT 19-014

Qualification Date: 25 September 2019

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	0.01	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	0.00	
Percent change in viscosity at 40°C	5% max	1.2%	
Metal specimen weight change, mg/cm ²			
1010 Steel	± 0.2	0.01	
Aluminum	± 0.2	-0.01	
Magnesium	± 0.2	0.00	
Cadmium plated steel	± 0.2	0.00	
Copper	± 0.4	0.01	
ASTM D130 Copper Color	No. 3a max	3a	
Separation of insoluble materials or gumming of the fluid	None	None	
Dielectric strength, kV	35 min	40	ASTM D877
Flash point, °C	150 min	172	ASTM D92
Fire point, °C	160 min	178	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	0.07	
Percent change in viscosity at 40 °C	± 5% max	1.37%	
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	3	FED-STD-791 Method 3012 (ISO 11500)
SAE AS4059 Particle Size Ranges, micrometers (µm), cumulative			FED-STD-791 Method 3012 (ISO 11500)
5 to 15 (6 to 14 (c))	8000 max	1311	
16 to 25 (15 to 21 (c))	1425 max	165	
26 to 50 (22 to 38 (c))	253 max	67	
51 to 100 (39 to 70 (c))	45 max	13	
> 100	8 max	0	
SAE AS4059 Particle Size Ranges, micrometers (µm), differential			
>6(c)	9731 max	1556	
>14(c)	1731 max	245	
>21(c)	306 max	80	
> 38(c)	53 max	13	
>70(c)	8 max	0	
Resistivity at 25°C, ohm-cm	1.0 x 10 ¹⁰ min	2.06 x 10 ¹³	ASTM D1169
Rubber swell, standard synthetic rubber, NBR-L, percent change in volume	0.0 - 10.0%	7.4%	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	45	ASTM D6304
Workmanship	Pass	Pass	MIL-PRF-87252F paragraph 3.4
Viscosity, mm ² /s (cSt)			
at -54°C, 1.5 hours	1300 max	1078	ASTM D2532
at -54°C, 3 hours	1300 max	1078	ASTM D2532
at -54°C, 72 hours	1300 max	1100	ASTM D2532
at -40°C	300 max	257	ASTM D445
at 40°C	5.0 min	5.0	ASTM D445
at 100°C	1.65 min	1.67	ASTM D445