



# MIL-PRF-6085E RADCOLUBE® 6085



## **RADCOLUBE® 6085**

LUBRICATING OIL INSTRUMENT, AIRCRAFT,  
LOW VOLATILITY

Lubricating oil designed for use in aircraft instruments, electronic equipment or where low-evaporation oil is required for both high and low-temperature applications and where oxidation and corrosion resistance is desirable.

**Military Symbol: OAI**

**NATO Code: 0-147**

**Qualification Number: AFPET/PTPS 24-015  
AFPET/PTPS 25-002**

**Qualification Date: 16 January 2020  
28 April 2025**

**ISO 9001:2015 Certification No: C2024-00254**

**Shelf Life: 24 Months from DOM**

**Manufactured: LaFox, IL 60147 | Cage: 1RVC4**



### NATIONAL STOCK NUMBERS (NSN)

|                  |               |
|------------------|---------------|
| 9150-00-223-4129 | Quart         |
| 9150-01-311-5640 | Oblong Gallon |
| 9150-01-018-8959 | 5 Gallon Pail |

**55 Gallon Drums Available Upon Request**



**RADCO INDUSTRIES, INC.**  
**CERTIFICATE OF TEST RESULTS FOR RADCOLUBE® 6085**  
**MIL-PRF-6085F LUBRICATING OIL, INSTRUMENT, AIRCRAFT, LOW VOLATILITY**

| Characteristics                                                                                                                                                                                                                                                                                                                                                                        | Requirement                                                                                | Typical Results                                                            | Test Method                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------|
| Viscosity, cSt (mm <sup>2</sup> /s)<br>at 54°C<br>at -54°C                                                                                                                                                                                                                                                                                                                             | 8 min<br>12,000 max                                                                        | 9.6<br>11230                                                               | ASTM D445                         |
| Pour Point                                                                                                                                                                                                                                                                                                                                                                             | -57°C max                                                                                  | ≤ -69                                                                      | ASTM D97                          |
| Flash Point                                                                                                                                                                                                                                                                                                                                                                            | 185°C min                                                                                  | 230                                                                        | ASTM D92                          |
| Precipitation Number                                                                                                                                                                                                                                                                                                                                                                   | 0 max                                                                                      | 0.00                                                                       | ASTM D91                          |
| Acid Number                                                                                                                                                                                                                                                                                                                                                                            | Report                                                                                     | 0.15                                                                       | ASTM D974                         |
| Corrosion and Oxidation Stability, 168 hours at 121° ± 1°C<br>Metal specimen weight change, mg/cm <sup>2</sup><br>Cadmium-plated steel<br>Copper<br>Steel<br>Aluminum<br>Magnesium alloy<br>No pitting, etching, or visible corrosion<br>Viscosity change at 54.4°C, percent<br>Acid number change, mg KOH/g<br>No evidence of separation of insoluble materials or gumming of the oil | 0.2 max<br>0.2 max<br>0.2 max<br>0.2 max<br>0.2 max<br>Pass<br>± 5% max<br>0.5 max<br>Pass | 0.00<br>0.00 (2e)<br>0.00<br>0.01<br>0.01<br>Pass<br>0.05%<br>0.01<br>None | ASTM D4636 Procedure 2            |
| Low temperature stability, 72 hours at -54°C                                                                                                                                                                                                                                                                                                                                           | MIL-PRF-6085F ¶ 3.4.3                                                                      | Pass                                                                       | MIL-PRF-6085F ¶ 4.4.2             |
| Evaporation Loss 22 hours at 120° ± 1°C, percent weight                                                                                                                                                                                                                                                                                                                                | 1.80%, max                                                                                 | 0.81%                                                                      | ASTM D972                         |
| Corrosivity                                                                                                                                                                                                                                                                                                                                                                            | MIL-PRF-6085F ¶ 3.4.5                                                                      | Pass                                                                       | MIL-PRF-6085F ¶ 4.4.6             |
| Color and Appearance<br>ASTM Color<br>Oil shall be clear, transparent and uniform in appearance.                                                                                                                                                                                                                                                                                       | No. 5 max<br>Pass                                                                          | L1.0<br>Pass                                                               | ASTM D1500<br>MIL-PRF-6085F ¶ 3.5 |
| Protection of panels for 100 hours                                                                                                                                                                                                                                                                                                                                                     | MIL-PRF-6085F ¶ 3.6                                                                        | Pass                                                                       | MIL-PRF-6085F ¶ 4.4.4             |
| Workmanship                                                                                                                                                                                                                                                                                                                                                                            | MIL-PRF-6085F ¶ 3.7                                                                        | Pass                                                                       | MIL-PRF-6085F ¶ 3.7               |

\* Data represents typical laboratory samples and are not guaranteed for all samples