



MIL-PRF-17331L

RADCOLUBE® 17331 (2190 TEP)



RADCOLUBE® 17331

LUBRICATING OIL, STEAM TURBINE AND GEAR,
MODERATE SERVICE

Lubricating oil intended for use in main and auxiliary turbines and gears, air compressors and certain hydraulic equipment as well as for general mechanical lubrication.

Military Symbol: 2190 TEP

NATO Code: O-250

**Qualification Number: Ser 05S/2019-028
Ser 05S/2020-160**

**Qualification Date: 22 February 2019
4 May 2020**

ISO 9001:2015 Certification No: C2021-00038

Shelf Life: 24 Months from DOM

Manufactured: Batavia, IL 60510 | Cage: 6ZS16



NATIONAL STOCK NUMBERS (NSN)

9150-01-368-7076	Oblong Gallon
9150-01-370-2583	5 Gallon Pail
9150-01-368-7075	55 Gallon Drum
9150-01-372-6915	Bulk

330 Gallon Totes Available Upon Request



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CHARACTERISTICS	REQUIREMENT	TYPICAL RESULTS	TEST METHOD
Sulfur, %	Report	0.00%	ASTM D129
Acid number mg KOH/g oil, max	0.3	0.26	ASTM D974
Corrosion in presence of salt water	None	Pass	ASTM D665 Procedure B
Copper Strip Corrosion test at 100 °C (212 °F), appearance, max	Classification 1	1B	ASTM D130
Oil Compatibility	Pass	Pass	Paragraph 4.4.5
Water, percent, max	0.01%	0.00%	ASTM D6304
Gravity, API	Report	31.4	ASTM D1298
Air release time, minutes at 50°C, max	20	6.1	ASTM D2427
Flash point, °C (°F), min	204°C (400°F)	254	ASTM D92
Pour point, °C (°F), max	-6°C (20°F)	-24°C (-11.2°F)	ASTM D97
Viscosity mm ² /s at 4.4°C (40°F), max mm ² /s at 40°C (104°F) mm ² /s at 100°C (212°F), min	870 77 - 97 8.0	755 79 9.7	ASTM D445
Emulsion test after 30 minutes settling time Oil layer/water layer/emulsion, max	41 / - / 3	41/39/0	ASTM D1401
Oxidation test after 1000 hours Acid number, mg KOH/g, max Total sludge, mg, max Total iron, mg, max Total copper, mg, max	2.0 100 100 100	0.15 11.4 1.8 1.2	ASTM D943 ASTM D974 ASTM D4310 ASTM D4310 ASTM D4310
Oxidation by rotating pressure vessel minutes to failure, min	200	>500	ASTM D2272
Scuffing load capacity (FZG), failure load stage	Load Stage 9	10	ASTM D5182
Wear test scar diameter, mm, max	0.33	0.26	ASTM D4172
Homogeneity, separation	None	None	Paragraph 4.4.1
Foaming characteristics: After blowing/after 10 minutes Sequence I, mL, max Sequence II, mL, max Sequence III, mL, max	65/0 65/0 65/0	0/0 0/0 0/0	ASTM D892
Cleanliness mg/100 mL, max	2.5	0.6	ASTM D4898