



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: C2024-00254

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



RADCO INDUSTRIES, INC.

TECHNICAL DATA SHEET FOR RADCOLUBE® 17331

MIL-PRF-17331L LUBRICATING OIL, STEAM TURBINE AND GEAR, MODERATE SERVICE; MILITARY SYMBOL 2190 TEP; NATO SYMBOL O-250

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			ASTM D445
mm ² /s at 4.4°C (40°F), max.	870	755	
mm ² /s at 40°C (104°F)	77 - 97	79	
mm ² /s at 100°C (212°F), min.	8.0	9.7	
Emulsion test, after 30 minutes settling time			ASTM D1401
Oil layer/water layer/emulsion, max.	41 / - / 3	41/39/0	
Oxidation test, after 1000 hours:			ASTM D943
Acid number, mg KOH/g, max.	2.0	0.15	ASTM D974
Total sludge, mg, max.	100	11.4	ASTM D4310
Total iron, mg, max.	100	1.8	ASTM D4310
Total copper, mg, max.	100	1.2	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:			ASTM D892
After blowing/after 10 minutes			
Sequence I, mL, max.	65/0	0/0	
Sequence II, mL, max.	65/0	0/0	
Sequence III, mL, max.	65/0	0/0	
Cleanliness, mg/100 mL, max.	2.5	0.6	ASTM D4898

RADCO INDUSTRIES, INC. 700 KINGSLAND DRIVE, BATAVIA, IL 60510, CAGE CODE 6ZS16

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