



TECHNICAL DATA SHEET FOR RADCOLUBE® 17331
MIL-PRF-17331L(2) LUBRICATING OIL, STEAM TURBINE AND GEAR, MODERATE SERVICE

Characteristics	Requirement	Typical Results	Test Method
Sulfur, %	Report	0.003%	ASTM D129
Acid number, mg KOH/g oil, max.	0.3	0.19	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	ASTM D7155
Water, percent, max.	0.01%	0.00%	ASTM D6304
Gravity, API	Report	30.1	ASTM D4052
Air release time, (minutes at 50°C, max.)	20	12.5	ASTM D3427
Flash point, °C (°F), min.	204°C (400°F)	243°C (469.4°F)	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	865	
mm ² /s at 40°C (104°F)	77 - 97	80	
mm ² /s at 100°C (212°F), min.	8.0	9.6	
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	0.11	ASTM D974
Total sludge, mg, max.	100	23.7	ASTM D4310
Total iron, mg, max.	100	3.3	ASTM D4310
Total copper, mg, max.	100	5.0	ASTM D4310
Oxidation by rotating pressure vessel, minutes to failure, min.	200	623	ASTM D2272
Scuffing load capacity (FZG), failure load stage	Load Stage 9	11	ASTM D5182
Wear test, scar diameter, mm, max.	0.33	0.26	ASTM D4172
Homogeneity, separation	None	None	MIL-PRF-17331L(2) 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

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