

# Technical Data Sheet

## Eastman™ Turbo Oil 2197

### Applications

- Aerospace
- Aviation turbine oil (ato)

### Key Attributes

- 5 cSt High Thermal Stability synthetic lubricant
- High temperature cleanliness
- Outstanding Oxidative, Thermal and Hydrolytic stability

### Product Description

Eastman Turbo Oil 2197™ is designed to exceed the demand of current and future turbine engines. With over 400 million hours of in-flight experience, it is by far the most widely used HTS fleet oil in the world. Turbo Oil 2197 is manufactured in our own facility so you can rely on consistently high quality wherever you are in the world.

Turbo Oil 2197 is AS5780 HPC / MIL-PRF-23699 HTS class, 5 cSt turbine oil for the most thermally demanding engine and accessory applications.

### Typical Properties

Property	Test Method	Typical Value, Units
<b>General</b>		
Density		
@ 15°C	ASTM D 1298	0.9968 kg/L
Viscosity, Kinematic		
@ 100°C	ASTM D 445	5.28 mm <sup>2</sup> /s
@ 40°C	ASTM D 445	26.98 mm <sup>2</sup> /s
@ -40°C after 35 minutes	ASTM D 2532	12,539 mm <sup>2</sup> /s
Pour Point	ASTM D 97	-57 °C
Flash Point	ASTM D92	262 °C
Total Acid Number	SAE ARP5088	0.36 mg KOH/g
Evaporation Loss		
6.5 hrs @ 204°C	ASTM D 972	2.30 %
Foaming Volume <sup>a</sup>		
Sequence 1 @ 24°C	ASTM D 892	10/0 ml/vol
Sequence 2 @ 93 °C	ASTM D 892	10/0 ml/vol
Sequence 3 @ 24°C	ASTM D 892	10/0 ml/vol
Thermal Stability & Corrosivity <sup>b</sup>		
Metal Weight	FED-STD-791, 3411	-0.154 mg/cm <sup>2</sup>
Total Acid Number	FED-STD-791, 3411	1.08 mg KOH/g
Viscosity	FED-STD-791, 3411	0.37
Corrosion & Oxidative Stability <sup>c</sup>		
Aluminium Weight Change	FED-STD-791, 5308	0.009 mg/cm <sup>2</sup>
Copper Weight Change	FED-STD-791, 5308	-0.076 mg/cm <sup>2</sup>
Magnesium Weight Change	FED-STD-791, 5308	-0.012 mg/cm <sup>2</sup>
Silver Weight Change	FED-STD-791, 5308	-0.017 mg/cm <sup>2</sup>
Sludge	FED-STD-791, 5308	0.37 mg/100ml
Steel Weight Change	FED-STD-791, 5308	0.011 mg/cm <sup>2</sup>
Total Acid Number	FED-STD-791, 5308	0.96 mg KOH/g
Viscosity @ 40°C	FED-STD-791, 5308	14.75 %

## Sediment

Metal Weight	FED-STD-791, 3010	0.12 mg/cm <sup>2</sup>
Sediment, 1.2 µm filter	FED-STD-791, 3010	0.85 mg/L
Visual Undissolved Water	FED-STD-791, 3010	None

<sup>a</sup>@ 1 minute setting

<sup>b</sup>@ 274°C

<sup>c</sup>72 hrs @ 204°C

## Comments

Properties reported here are typical of average lots. Eastman makes no representation that the material in any particular shipment will conform exactly to the values given.

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