



**Product Data**

**Brayco 589**

Corrosion Preventive Oil

**Description**

Castrol Brayco™ 589 is a light amber colored, inhibited synthetic ester based gas turbine lubricating and preservative oil. It is formulated for limited use in aircraft gas turbine engines designed to operate on MIL-PRF-7808 oils and provides long term storage and corrosion protection.

**Application**

Brayco 589 is intended for preservation of turboprop and turbojet engines. This corrosion preventative oil is capable of limited use, not to exceed 25 hours, as an aircraft engine lubricant, and can be used for both preservation and final acceptance runs of aircraft engines requiring MIL-PRF-7808 oils.

Since Brayco 589 is a synthetic ester based fluid it may adversely affect certain paints and elastomers. Serious deterioration of rubber parts, coatings, paint, and other organic materials may result from use of this product in systems designed for use with petroleum based fluids. Customers should determine the compatibility of existing components and make any changes as required to accompany use of this fluid.

**Typical Characteristics**

Name	Method	Units	MIL-PRF-8188D Requirements	Brayco 589
API Gravity @ 15.6°C	ASTM D 287	degrees		15.4
Specific Gravity @ 15.6°C	ASTM D 287	-		0.965
Density @ 15.6°C	ASTM D 287	lbs/gal		8.03
Kinematic Viscosity @ 100°C	ASTM D 445	cSt	3.25 Min.	3.32
Kinematic Viscosity @ 40°C	ASTM D 445	cSt	11.5 Min.	14.0
Kinematic Viscosity @ -51.1°C, 35 mins	ASTM D 2532	cSt	17,000 Max.	11,400
Flash Point, COC	ASTM D 92	°C / °F	210 / 410 Max.	226 / 440
Pour Point	ASTM D 97	°C / °F	-60 / -75 Max.	-63 / -80
Corrosion - Oxidation Stability 48 hrs @ 200°C (% wt change)	ASTM D 4636			
Silver		mg/cm <sup>2</sup>	-0.2	-0.02
Aluminum		mg/cm <sup>2</sup>	-0.2	0.00
Magnesium		mg/cm <sup>2</sup>	-0.4	0.00
Steel		mg/cm <sup>2</sup>	-0.2	0.00
Bronze		mg/cm <sup>2</sup>	-0.4	-0.04
Titanium		mg/cm <sup>2</sup>	-0.2	-0.05
Viscosity change @ 40°C		% change	-5 to +25	5 - 10
TAN change	mgKOH/g	4.0 Max.	0.5	
Corrosion Test @ 232°C silver wt. change	ASTM 5305	g/m <sup>2</sup>	+/- 4.5 Max.	0.0
copper wt. change		g/m <sup>2</sup>	+/- 4.5 Max.	-0.01

Name	Method	Units	MIL-PRF-8188D Requirements	Brayco 589
Rubber Swell, "H" Type	FTM 3604	%	12 to 35	28.6
Evaporation Loss, 6.5 hrs @ 205°C	ASTM D 972	% wt	30 Max.	15
Compatibility	Spec 4.4.4	Pass / Fail	Pass	Pass
Protection, Humidity Cabinet	ASTM D 1748	Pass / Fail	Pass	Pass
Workmanship	Spec 3.6	Pass / Fail	Pass	Pass
Foaming, Static Volume, ml Collapse Time, sec	FTM 3213	Pass / Fail	100 Max. 60 Max.	Pass Pass
Lead Corrosion, Wt Loss 1 hr @ 163°C	FTM 5321	g/m <sup>2</sup>	40 Max.	1.2

Subject to usual manufacturing tolerances.

## Additional Information

### Temperature Range

The recommended operating temperature range for MIL-PRF-7808 type oils are from -54°C to 149°C (-65°F to 300°F).

### Specifications

Brayco 589 meets all the requirements of, and is qualified to MIL-PRF-8188D. This fluid is identified by NATO Code: C-638.

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