

Specifications for Jet Fuel Colonial Specs

Colonial Pipeline Company

PRODUCT SPECIFICATIONS
SPECIFICATIONS FOR FUNGIBLE AVIATION KEROSENE GRADE 54

3.19.1

EPA Designation: Jet Fuel

Cancels Previous Issues of Grade 54

<u>Product Property</u>	<u>ASTM Test Method</u>	<u>Test Results</u>		<u>Note</u>
		<u>Minimum</u>	<u>Maximum</u>	
<u>General Properties</u>				
Gravity	D287, D1298, D4052	37	51	
Net Heat of combustion BTU/Pound	D3338, D4529, D4809	18,400		
Corrosion 2 hrs. @ 212°F (100°C)	D130		1	
MSEP: Origin	D3948	85		
MSEP: Delivery	D3948	75		
Electrical				
Conductivity, pS/m @ 21°C(70°F)	D2624		Report	
Determination of	MIL-T-5624P, D5452			
	Filtration Time or Volume		Report	3
	Total Solids or Particulate		Report	
<u>Low Temperature Properties</u>				
Freezing Point, °C	D2386, D5972		-40	5
Viscosity, cSt @ -4°F (-20°C)	D445		8.0	
<u>Volatility</u>				
Flash Point, °F	D56, D3828	108		
Physical Distillation, °C(°F)	D86			7
	10% recovered		205(400)	
	50% recovered	Report		
	90% recovered	Report		
	End Point		300(572)	
	Residue, %		1.5	
	Loss, %		1.5	
or Simulated Distillation, °C(°F)	D2887			7
	10% recovered		185(365)	
	50% recovered	Report		
	90% recovered	Report		
	End Point		340(644)	
<u>Stability</u>				
Existent Gum, mg/100 ml	D381		7.0	
Thermal Stability @ 275°C	D3241			Origin
	Pres. drop in mm/Hg		25	
	Tube deposit less than code		Code 3	
		No Peacock or Abnormal Color Deposits		

December 2006

* Denotes Change

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**PRODUCT SPECIFICATIONS
 SPECIFICATIONS FOR FUNGIBLE AVIATION KEROSENE GRADE 54**

3.19.2

Cancels Previous Issues of Grade 54

<u>Product Property</u>	<u>ASTM Test Method</u>	<u>Test Results</u>		<u>Note</u>
		<u>Minimum</u>	<u>Maximum</u>	
<u>Stability</u>				
Thermal Stability @ 260°C	D3241			Delivery
Pres. drop in mm/Hg			25	
Tube deposit less than code			Code 3	
		No Peacock or Abnormal Color Deposits		
<u>Composition Properties</u>				
Sulfur, ppmwt	D2622, D5453 D7039, D4294		3000	6
Mercaptan Sulfur, wt.%	D3227		0.003	4
OR				
Doctor test	D4952		Negative (sweet)	
Aromatics, vol.%	D1319		25	
Acidity total max, mg KOH/g	D974, D3242		0.1	
<u>Combustion Properties</u>				
Smoke point, mm	D1322	25		
OR				
Smoke point, mm and	D1322	18		
Naphthalenes, vol.%	D1840		3.0	

NOTES:

- Product shall be clear and bright and free of suspended matter.
- Additive requirements/restrictions - refer to section 3.2.
- At this time, the test limits described in MIL-T-5624P, Appendix A, parts 70.a(1) and 70.b will not be imposed.
- Mercaptan Sulfur waived if fuel is negative by Doctor test.
- The referee method will be D2386
- Origin laboratory certifying sulfur content can qualify the test method used per EPA Performance Based Testing Criteria (see CFR 80.584). The referee test method will be ASTM D5453.
- Either physical or simulated distillation can be used. The referee test method will be ASTM D 86.

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