



Specifications

Reformulated Regular Gasoline Blendstock RBOB
To Be Blended with 10% Denatured Fuel Ethanol (92% Purity)
Compliant with ASTM D4806

Per Colonial Pipeline; (All Requirements, Segregated and Fungible):

<u>Product Property</u>	<u>ASTM Test</u>		<u>Test Results</u>		<u>Note</u>
	<u>Method</u>	<u>Minimum</u>	<u>Maximum</u>		
Benzene (vol%)	D3606		1.30		
Octane RON	D2699	Report			
MON	D2700	82.0			
(R+M)/2		87.0			
*Oxygen Content, weight %	D5599 (See Note)				1,2,7,8
*Aromatics (vol%)	D5769, D5599 (See Note)		50		2
E200 (vol%)	D86	30	70		
E300 (vol%)	D86	70	100		
Olefins (vol%)	D1319		25		
Sulfur (ppmw)	D2622		80		9
Non-VOC Controlled Requirements					
RVP (psi)	D5191				3
<u>Grades</u>					
F3,3F (Non-VOC Controlled)			11.5		
F4,4F (Non-VOC Controlled)			13.5		
F5,5F (Non-VOC Controlled)			15.0		
VOC Controlled Requirements					
(Grades F1,F2,1F,2F, only)					
RVP (psi)	D5191		Report		3
*Emissions Performance Reductions (%)					
Region 1 (Grades F1,1F)		Origin:	-28.0%		11
			-27.0%		
		Delivery:	-25.0%		
Region 2 (Grades F2,2F)		Origin:	-26.4%		11
			-25.4%		
		Delivery:	-23.4%		



Per Colonial Pipeline; (Fungible Only Requirements):

<u>Product Property</u>	<u>ASTM Test</u>		<u>Test Results</u>		<u>Note</u>		
	<u>Method</u>	<u>Minimum</u>	<u>Maximum</u>				
Color				Undyed			
Corrosion (Cu) 3 hrs @122°F (50°C)	D130			1			
*Corrosion (Ag) 3 hrs @122°F (50°C)	D4814 Annex A1			1			
Doctor test	D4952			Negative (sweet)	5		
or							
Mercaptan sulfur, wt.%	D3227			0.002			
Existent Gum mg/100 ml	D381			4			
Gravity °API at 60°F	D287,D1298, D4052	Report			7		
Oxidation stability-minutes	D525	240					
Phosphorous, gms/gal	D3231			0.004			
*Nace Corrosion	TM0172	B+ (Origin)			7		
<u>Volatility:</u>							
Driveability Index	D4814			See Chart			
Distillation, °C (°F) @ %Evap.	D86						
Vapor/Liquid Ratio (V/L), °C (°F) @ 20					6		
	D5188 (See Note 6)						
	Driveability	10 vol%	50 vol%		90 vol%	End Pt.	V/L
<u>Grades</u>	<u>Index</u>	<u>Max</u>	<u>Min</u>	<u>Max</u>	<u>Max</u>	<u>Max</u>	<u>Min</u>
F1,F2	1250	70(158)	77(170)	121(250)	190(374)	221(430)	56(133)
F3	1230	60(140)	77(170)	116(240)	185(365)	221(430)	51(124)
F4	1220	55(131)	66(150)	113(235)	185(365)	221(430)	47(116)
F5	1200	50(122)	66(150)	110(230)	185(365)	221(430)	41(105)

Notes:

- Heavy Metals are not allowed to be present.
- This is a base gasoline, not for sale to the ultimate consumer.
- Any gasoline containing more than 0.50 wt. % of dicyclopentadiene will not be accepted for shipment.
- The referee method will be based on a gas chromatograph test.
- Emissions reductions must be calculated using EPA guidelines.
- Mercaptan Sulfur waived if fuel is negative by Doctor test.
- Computer and Linear methods may be used to determine V/L value. D5188 will be the referee method
- Specifications must be met before blending of denatured fuel ethanol.
- Oxygen content must meet a minimum of 1.7 wt.% and a maximum of 4.0 wt.% after blending

