

NZW Grade Arizona Winter Blend Stock

<u>Product Property</u>	<u>ASTM Test Method</u>	<u>Test Results</u>			
		<u>Minimum</u>	<u>Maximum</u>		
Octane RON	D 2699	Report			
MON	D 2700	Report			
(R+M)/2		84.0			
Oxygen Content (wt%) ^{1/}	D 4815		0.05		
RVP (psi)	D 5191		8.0		
Benzene (vol%)	D 3606		1.30		
Aromatics (vol%)	D 5769		33.1		
Olefins (vol%)	D 1319		11.1		
CARB Predictive Model Calculation		Pass			
Color			Undyed		
Corrosion (Cu) 3 hrs @ 122°F(50°C)	D 130		1		
Corrosion (Ag) 3 hrs @ 122°F (50°C)	D 4814		1		
Doctor test ^{2/}	D 4952		Negative		
or Mercaptan sulfur (wt.%)	D 3227		0.002		
Existent Gum (mg/100 ml)	D 381		4		
Gravity °API @ 60°F	D 287	Report			
Oxidation stability (minutes)	D 525	240			
Phosphorous (gms/gal)	D 3231		0.003		
Lead (gms/gal)	D 5059		0.010		
Sulfur (ppm)	D 5453		80		
NACE	TM0172		B+		
Haze ^{3/}	D 4176		2		
Odor	Olfactory		Non-Offensive		
<u>Volatility:</u>					
Distillation, (°F)	D 86				
Vapor/Liquid Ratio (V/L °F@ 20)	D 2533				
Drivability Index (DI)	D 4814				
<u>Grade</u>	<u>50%Evap</u>	<u>90%Evap</u>	<u>End pt</u>	<u>V/L</u>	<u>DI</u>
K6	<u>Max</u> 237	<u>Max</u> 335	<u>Max</u> 430	<u>Min</u> 140	<u>Max</u> 1250

1/ Total oxygen levels shall not exceed de minimus levels. The use of non-hydrocarbon blending components such as MTBE is prohibited.

2/ Mercaptan Sulfur determination is waived if the result of the Doctor Test ASTM D4952 is negative.

3/ Product must be tested at 55°F or tank temperature whichever is lower.

- Product must be certified using current Arizona AZRBOB regulations from a state of Arizona registered supplier.
- In addition to the above a LPP Product Transfer Document for AZRBOB must be filled out and provided to Longhorn Pipe Line Quality Control.
- All gasoline must meet latest revision of ASTM D 4814.
- Corrosion inhibitors, gum inhibitors and metal deactivators must be approved by Longhorn Pipeline
- No additives or corrosion inhibitors containing phosphorus may be used in this gasoline.

NZW Grade Arizona Winter Blend Stock (continued)

- The shipment of fuels containing Port Fuel Injector (PFI) and intake valve detergent additives is prohibited. This is a base gasoline, not for sale to the ultimate consumer
- Any gasoline exhibiting an offensive and/or containing more than 0.50wt % dicyclopentadiene will not be accepted for shipment.
- AZRBOB does not comply with the standards for Arizona CBG without the addition of oxygenate.
- This AZRBOB is intended for blending with 10% volume ethanol and may not be combined with AZRBOB's requiring oxygenate blending with any other type or amount of oxygenate.