

XU Grade Ultra Low Sulfur #2 Diesel Fuel Specifications
Rocky Mountain System

Product Property	Test Method	Origin		Deliveries ^{1/}
		Test Results Minimum	Test Results Maximum	
Gravity, °API	D287	Report		
Color	D1500		2.5	3.0
Distillation	D86			
50% Recovered, °F			Report	
90% Recovered, °F		540	640	
OR				
Simulated Distillation	D2887			
50% Recovered, °F			Report	
90% Recovered, °F		572	672	
Copper Corrosion	D130		1	
Cetane				
(1) Cetane Number	D613	40.0		
OR (2) Cetane Index, procedure A	D4737	40.0		
Cetane Index ^{2/}	D976	40		
Flash Point, °F	D93	134		
Stability				
(1) Thermal, % reflectance	D6468 (W)	75		
	D6468 (Y)	82		
Aging Period (Minutes)	D6468	90		
OR (3) Oxidation, mg/100 ml	D2274		2.5	
Carbon Residue on 10% Bottoms, %	D524		0.35	
Cloud Point, °F	D2500		^{5/}	
Pour Point, °F	D97		^{5/}	
Viscosity, cSt at 104 °F	D445	1.9	4.1	
Ash, wt %	D482		0.01	
Haze Rating ^{6/}	D4176		2	3
NACE Corrosion	TM0172, D7548		B+	
Sulfur, ppm ^{7/ 8/}	D2622		12	

1/ Delivered products meets all applicable requirements at time and place of delivery.

2/ ASTM D976 data is required for low sulfur fuel oils to demonstrate aromatics compliance per the EPA.

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5/	<u>Month</u>	<u>Pour Point °F, max.</u>	<u>Cloud Point °F, max</u>
	January	-20	+5
	February	-20	+5
	March	-20	+5
	April	Report	+20
	May	Report	+20
	June	Report	+20
	July	Report	+20
	August	Report	+20
	September	Report	+20
	October	-20	+5
	November	-20	+5
	December	-20	+5

6/ Compliance with ASTM D4176 will be determined using Procedure 2 at 77 °F or tank temperature at the time of sampling, whichever is lower.

7/ All results provided must use an EPA qualified instrument.

Additional Requirements:

Biodiesel: The use of any biodiesel fuel as a blending component is prohibited.

Dyes: X Grade shipments may not be dyed.