

XB5 Grade #2 Ultra Low Sulfur Diesel Fuel with up to 5% Biodiesel Specifications

Product Property	Method	Minimum	Maximum	Deliveries ^{1/}
Gravity, °API	D287		Report	
Color	D1500		2.5	3
Distillation ^{4/}	D86, D2887			
50% Recovered, °F			Report	
90% Recovered, °F		540	640	
End Point °F			700	
Copper Corrosion	D130		1	
Cetane				
Cetane Number	D613	40		
Or				
Cetane Index, A or B	D4737	40		
Cetane Index ^{2/}	D976	40		
Flash Point, °F	D93	135		130
Stability				
Thermal, % reflectance (W or Y)	D6468 (W)	75		
	D6468 (Y)	82		
Aging Period (Minutes)	D6468	90		
Or				
Oxidation, mg/100 ml	D2274		2.5	
Carbon Residue on 10% Bottoms, wt %	D524		0.35	
Cloud Point, °F	D2500		Report	N/A
Pour Point, °F	D97		Report	N/A
Viscosity, cSt at 104 °F	D445	1.9	4.1	
Ash, wt %	D482		0.01	
Haze Rating ^{3/}	D4176		2	3
NACE Corrosion	TM0172, D7548	B+		
Sulfur, ppm	D2622		11	

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(continued)

Foot Notes:

- 1/ Delivered products meet all applicable requirements at time and place of delivery and the product transfer documents will include the sulfur per-gallon standard that the fuel meets per 40 CFR 1090.1165(a)(1) and an accurate and clear designation of the fuel per 40 CFR 1090.1165(a)(2).
- 2/ ASTM D976 used to demonstrate aromatics compliance per 40 CFR 1090.305.
- 3/ Compliance with ASTM D4176 will be determined using Procedure 2 at 77 °F or tank temperature at the time of sampling, whichever is lower.
- 4/ ASTM D2887 Simulated Distillation results must be reported after D86 correlation.

Notes:

- XB5 complies with the ULSD standards of 40 CFR 1090.305.
- XB5 is designated as ULSD in accordance with 40 CFR 1090.1115.
- XB5 may contain up to 5% biodiesel.

Additional Requirements:

Biodiesel: Injection of up to 5% biodiesel meeting the specification of ASTM D6751 may be injected into X grade outbound from the origin for shipments on the following line segments:

- East Houston to Hearne 20”

Dyes: X Grade shipments may not be dyed.