

D Grade Premium Diesel Fuel Specifications

Product Property	Test Method	Origin		Deliveries ^{1/}
		Test Results Minimum	Maximum	
Gravity, °API	D287	Report		
Color	D1500		2.0	2.5
Distillation,	D86			
IBP, °F		340		
50% Recovered, °F		460		
90% Recovered, °F		540	640	
Copper Corrosion	D130		1	
Cetane				
(1) Cetane Number	D613	48.0		
OR (2) Cetane Index, A or B	D4737	48.0		
Cetane Index ^{2/}	D976	40		
Flash Point, °F	D93	140		140
Stability				
Thermal, % reflectance	D6468 (W)	75		
	D6468 (Y)	82		
Aging Period (Minutes)	D6468	90		
Carbon Residue on 10% Bottoms, %	D524		0.20	
Cloud Point, °F	D2500		^{4/}	
Pour Point, °F	D97		^{4/}	
Viscosity, cSt at 104 °F	D445	1.9	4.1	
Ash, wt %	D482		0.01	
Haze Rating ^{5/}	D4176		2	3
NACE Corrosion	TM0172, D7548	B+		
Sulfur, ppm	D2622		11	

D Grade Premium Diesel Fuel Specifications (continued)

- 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.
- 3/ The Potential Gum will be determined by ASTM method D381 modified (Steam Jet Evaporation at 485 °F) after a 16 hour induction period by ASTM method D525 modified. Contact Magellan QC to request a copy of this method.

4/ <u>Month</u>	<u>Pour Point °F, max</u>	<u>Cloud Point °F, max</u>
January	0	+14
February	0	+14
March	0	+14
April	+10	+20
May	+10	+20
June	+10	+20
July	+10	+20
August	0	+14
September	0	+14
October	0	+14
November	0	+14
December	0	+14

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

Additional Requirements:

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

Dyes: D Grade shipments may not be dyed.