



## SPECIFICATION FOR BIODIESEL (B100) – ASTM D6751-07b

September 2007

Biodiesel is defined as the mono alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, for use in compression-ignition (diesel) engines. This specification is for pure (100%) biodiesel prior to use or blending with diesel fuel. #

Property	ASTM Method	Limits	Units
Calcium & Magnesium, combined	EN 14538	5 max	ppm (ug/g)
Flash Point (closed cup)	D 93	93 min.	Degrees C
<b>Alcohol Control (One of the following must be met)</b>			
<b>1. Methanol Content</b>	<b>EN14110</b>	<b>0.2 Max</b>	<b>% volume</b>
<b>2. Flash Point</b>	<b>D93</b>	<b>130 Min</b>	<b>Degrees C</b>
<b>Water &amp; Sediment</b>	<b>D 2709</b>	<b>0.05 max.</b>	<b>% vol.</b>
Kinematic Viscosity, 40 C	D 445	1.9 - 6.0	mm <sup>2</sup> /sec.
Sulfated Ash	D 874	0.02 max.	% mass
<b>Sulfur</b>			
<b>S 15 Grade</b>	<b>D 5453</b>	<b>0.0015 max. (15)</b>	<b>% mass (ppm)</b>
<b>S 500 Grade</b>	<b>D 5453</b>	<b>0.05 max. (500)</b>	<b>% mass (ppm)</b>
Copper Strip Corrosion	D 130	No. 3 max.	
Cetane	D 613	47 min.	
<b>Cloud Point</b>	<b>D 2500</b>	<b>Report</b>	<b>Degrees C</b>
Carbon Residue 100% sample	D 4530*	0.05 max.	% mass
<b>Acid Number</b>	<b>D 664</b>	<b>0.50 max.</b>	<b>mg KOH/g</b>
<b>Free Glycerin</b>	<b>D 6584</b>	<b>0.020 max.</b>	<b>% mass</b>
<b>Total Glycerin</b>	<b>D 6584</b>	<b>0.240 max.</b>	<b>% mass</b>
Phosphorus Content	D 4951	0.001 max.	% mass
Distillation, T90 AET	D 1160	360 max.	Degrees C
Sodium/Potassium, combined	EN 14538	5 max	ppm
<b>Oxidation Stability</b>	<b>EN 14112</b>	<b>3 min</b>	<b>hours</b>

**Workmanship**

**Free of undissolved water, sediment, & suspended matter**

BOLD = BQ-9000 Critical Specification Testing Once Production Process Under Control

\* The carbon residue shall be run on the 100% sample.



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- # A considerable amount of experience exists in the US with a 20% blend of biodiesel with 80% diesel fuel (B20). Although biodiesel (B100) can be used, blends of over 20% biodiesel with diesel fuel should be evaluated on a case-by-case basis until further experience is available.