



## SPECIFICATION FOR BIODIESEL (B100) – ASTM 6751-11a

#Biodiesel (B100) and the petroleum diesel must meet their respective ASTM specifications before blending.

Property	ASTM Method	Limits	Units
Calcium & Magnesium, combined	EN 14538	5 maximum	ppm (µg/g)
<b>Flash Point (closed cup)</b>	<b>D 93</b>	<b>93 minimum</b>	<b>°C</b>
Alcohol Control (one to be met)			
1. Methanol Content	EN 14110	0.2 maximum	mass %
2. Flash Point	D93	130 minimum	°C
<b>Water &amp; Sediment</b>	<b>D 2709</b>	<b>0.05 maximum</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 maximum	% 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 maximum	
Cetane	D 613	47 minimum	
<b>Cloud Point</b>	<b>D 2500</b>	<b>report</b>	<b>°C</b>
Carbon Residue 100% sample	D 4530*	0.05 maximum	% mass
<b>Acid Number</b>	<b>D 664</b>	<b>0.5 maximum</b>	<b>mg KOH/g</b>
<b>Free Glycerin</b>	<b>D 6584</b>	<b>0.020 maximum</b>	<b>% mass</b>
<b>Total Glycerin</b>	<b>D 6584</b>	<b>0.240 maximum</b>	<b>% mass</b>
Phosphorus Content	D 4951	0.001 maximum	% mass
Distillation	D 1160	360 maximum	°C
Sodium/Potassium, combined	EN 14538	5 maximum	ppm (µg/g)
<b>Oxidation Stability</b>	<b>EN 15751</b>	<b>3 minimum</b>	<b>hours</b>
<b>Cold Soak Filtration</b>	<b>D7501</b>	<b>360 maximum</b>	<b>seconds</b>
<b>For use in temperatures below -12 °C</b>	<b>D7501</b>	<b>200 maximum</b>	<b>seconds</b>

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

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

# 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.