

# Fuel Specification



Diesel HPR – High Performance Renewable

Diesel HPR is a high performance renewable fuel that meets the ASTM D975 petroleum diesel specification for use in all diesel engines. Refined from clean biomass sources, Diesel HPR improves engine performance while reducing harmful emissions. Diesel HPR does not contain biodiesel.

## Diesel HPR compared to Diesel Specification (ULSD)

Property	Diesel HPR	Diesel ASTM D975
Cetane number	75	Min. 40
Sulfur (ppm mg/kg)	Max. 5	Max. 15
Aromatic content (% vol)	1	Max. 35
Lubricity (µm)	Additized to meet diesel specification of 520	Max. 520
Ash (% mass)	Max. 0.001	Max. 0.01
Water and sediment (% vol)	Max. 0.02	Max. 0.05
Flash point °C	Min. 60	Min. 52

## Emissions reductions compared to Diesel

Emission	Diesel HPR reductions as compared to Diesel <sup>1</sup>	B20 Biodiesel reductions as compared to Diesel <sup>2</sup>
Nitrogen Oxides (NOx)	-14.3%	+1.5%
Particulate Matter (PM)	-34.2%	-19%
Carbon Monoxide (CO)	-12.6%	-14%
GHGs (Carbon Intensity) <sup>3</sup>	-67% average CI	-13.7%

1. National Renewable Energy Laboratory, Test Summary Report, Renewable Diesel – Engine Emissions and Fuel Property, Feb 2012

2. California Environmental Protection Agency, Staff Report, Multimedia Evaluation of Biodiesel, November 2013

3. California Air Resources Board, Summary, Method 2A/2B Applications and Internal Priority Pathways, November 2014.