

Hydrotreated Vegetable Oil

An introduction to our Hydrotreated Vegetable Oil (HVO), an environmentally-friendly diesel alternative for static and road-going engines



Crown Oil
Fuels and Lubricants

Here at Crown Oil, we're committed to help our customers cut their greenhouse gas emissions. That's why we've invested in **Hydrotreated Vegetable Oil (HVO)**, a drop-in replacement for mineral diesel that offers up to 90% lower greenhouse gas emissions, an extended storage lifespan and more.

This document explains HVO's benefits, its specifications and why businesses across Europe are choosing this environmentally-friendly diesel alternative for their engines and road-going fleets.

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A second-generation biofuel

For the last 70 years, Crown Oil has been supplying fuels, oils and lubricants to domestic and commercial customers across the UK. In recent years we added a range of environmental services to our offering, helping our customers to make the most of their fuels and to ensure their safe storage and use.

These environmental considerations haven't been purely external: as a fuel supplier, we're aware of the effect our actions have on the environment. Since 2008, we've voluntarily carbon-offset our delivery mileage without any cost to the customer, and have developed products and services that help our customers reach their own green targets.

Our decision to invest in new greener, cleaner biofuels is the natural extension of these concerns. We believe that Crown HVO represents the best environmentally-friendly fuel on the market, balancing ease of use with the consistently high fuel quality that we're known for.

Crown HVO fuel is a synthetic paraffinic fuel manufactured from sustainable and renewable raw materials; its high quality and purity making it perfectly suited to a range of applications including vehicles, generators and industrial power systems.

Ease of use is a primary concern when considering any new fuel; however, Crown HVO is a drop-in replacement for fossil diesel, so you can simply top up your tank with Crown HVO without draining or cleaning out your existing stock*.

HVO at a glance

- Up to 90% reduction in greenhouse gas emissions and reduces NOx, PM and CO emissions
- Drop-in replacement for fossil diesel
- Delivery mileage is carbon offset
- High cetane number (up to 90)
- Excellent cold-weather performance
- High purity reduces need for fuel testing
- Up to 10 year shelf life**

* Crown HVO is fully miscible with fossil and mineral diesels with no FAME content.

** 10 year lifespan assumes good tank husbandry and maintenance.

Technical Specifications

Parameter	Units	Test Method	Specification	Typical Value
Appearance	-	ASTM D4176-2	Clear and bright	Clear and bright
Density at 15°C	kg/m ³	EN ISO 12185	0.770 - 0.790	0.780
Viscosity at 40°C	mm ² /s	EN ISO 3104	2.0 - 4.0	2.8
Sulphur Content	mg/kg	EN ISO 20884	5 maximum	<5
Flash point	°C	EN ISO 2719	61 minimum	>70
Cloud point - Summer - Winter	°C	EN 23015	15 maximum -34 maximum	< -15 < -34
CFPP - Summer - Winter	°C	EN116	-15 maximum -34 maximum	< -15 < -34
Water Content	mg/kg	EN ISO 12937	200 maximum	40
Ash Content	% m/m	EN ISO 6245	0.001 maximum	<0.001
Initial Boiling Point	°C	EN ISO 3405	180 minimum	>180
Recovered at 250°C	% v/v	EN ISO 3405	<65	<20
Recovered at 350°C	% v/v	EN ISO 3405	85 minimum	>98
95% recovered at	°C	EN ISO 3405	360 maximum	>95
Cetane Number	-	EN 15195	70 minimum	80
Cetane Index	-	EN ISO 4264	70 minimum	80
CFPP	°C	EN 116	-15 to -34	*
Carbon Residue (on 10% distillation residue)	% m/m	EN ISO 10370	0.1 maximum	<0.01
Oxidation Stability	g/m ³	EN ISO 12205	25 maximum	<5
Copper Strip Corrosion 3hr/50°C	-	EN ISO 2160	1 maximum	1a
Net Heat of Combustion	MJ/kg	ASTM D4809	42 minimum	44
Particulate Matter	mg/kg	EN 12662	10 maximum	<1
Lubricity/HFRR	µm	EN ISO 12156-1	400 maximum	350
Renewable Diesel	% v/v	-	100	100
Fatty Acid Methyl Ester	% v/v	-	0	0
Total Aromatics	% m/m	EN 12916	1 maximum	<1
Polycyclic Aromatics (PAH)	% v/v	SS 155116	0.02 maximum	<0.02

The Fuel Experts

Established over 70 years ago, Crown Oil is an independently owned, family-run business, supplying oil and lubricants throughout the UK, to both domestic and commercial customers.

We believe excellent service before and after your order is paramount to our continued success. When combining this with our first-class local knowledge, competitive fuel prices and efficient deliveries, we are confident we can provide a complete fuel solution you can rely on.

We have a wide range of fuel services on offer, including environmental services, designed to help you get the most out of your fuels, such as:

- Fuel Management Service
- National Fuel Supplies
- Out of Hours, Emergency Fuel Deliveries
- Fuel Testing
- Fuel Uplift
- Fuel Polishing
- Priority Fuel Contract Service

To find out how Crown Oil's Hydrotreated Vegetable Oil (HVO) can benefit your business, call us on **0330 123 1444** or visit our website at www.crownoil.co.uk.

