HVO 100 (renewable diesel)

CEPSA's HVO 100 is a fuel in which certain raw materials are used to produce Hydrotreated Vegetable Oil (HVO), also known as Paraffinic Diesel or Hydrobiodiesel. It is an alternative to traditional biodiesel with reduced sulfur content and is a renewable and sustainable solution to promote decarbonization in transportation.

Benefits

- It can reduce **CO_2 emissions by up to 90%** depending on the raw material used.
- It can be used to replace traditional diesel used in current engines*. It can be used for partial or total replacement **without the need to change infrastructure.**
- They can be produced from waste (2nd generation) that is given another life, making it more environmentally friendly and favoring the **circular economy.**
- It has a **high cetane number**, which improves the combustion quality of the vehicle.

**Check with the manufacturer for compatibility between HVO and the engine.*

Quality levels (and Regulation)

Complies with:

- EN15940 requirements for paraffinic diesel.

Health and Safety

- A Safety Data Sheet is available to those interested. (https://www.cepsa.es/es/fichas-de-seguridad)

Sustainability

- It has the International **Sustainability and Carbon Certification (ISCC EU)**. ISCC EU certification provides proof of compliance for the European biofuels market under the Renewable Energy Directive (RED) and the Fuel Quality Directive (FQD).
- Our *Energy Parks* are **ISO 14001** certified, a standard that allows companies to demonstrate their commitment to environmental protection through the risks associated with their activities.
- Our *Energy Parks* are compliant with the **European EMAS Regulation** which defines an environmental management and audit scheme open to any type of organization at an international level. EMAS is a symbol of modern, transparent environmental management and global involvement of the entire organization.
- Our *Energy Parks* are also **ISO 14064-1:2018** certified, a standard that establishes the basis for accrediting and guaranteeing the calculations performed for the reporting of Greenhouse Gases (GHG) of organizations and is used as a methodology for calculating the carbon footprint.

Possible raw materials

- Used cooking oils
- Vegetable oil from sustainable crops
- Residual animal fat from the food industry
- Vegetable oil from waste and residues

CHARACTERISTICS	UNIT	STANDARD	MIN.	MAX.
Density a 15 °C	kg/m³	EN ISO 12185	765	800
Aromatics	% (m/m)	EN 12916	-	1,1
Sulfur content	mg/kg	EN ISO 20846	-	5,0
Flash point	ºC	EN ISO 2719	Sup 55.0	-
Carbon residue on 10 % distillation residue	% (m/m)	EN ISO 10370	-	0,30
Ash content	% (m/m)	EN ISO 6245	-	0.010
Water content	mg/kg	EN ISO 12937	-	200
Total contamination	mg/kg	EN 12662	-	24
Copper strip corrosion 3h/50°C		EN ISO 2160	-	class 1
Oxidation stability	g/m³	EN ISO 12205	-	25
Lubricity / HFRR	µm	EN 12156-1	-	400
Viscosity at 40 °C	mm²/s	EN ISO 3104	2.000	4.500
Distillation		EN ISO 3405		
Initial boiling point	ºC		Report	-
Recovered at 65 % (V/V)	ºC		250	-
Recovered at 85 % (V/V)	ºC		-	350
Recovered at 95 % (V/V)	ºC		-	360
Cloud point	ºC	ASTM D2500	-	+6 (Summer)/ 0 (Winter)
Cold filter plugging point (CFPP)	ºC	EN116	-	0 (Summer)/ −10 (Winter)
Cetane number		EN 15195	70	-
FAME	% (V/V)	EN 14078		7.0
Manganese	(mg/L)	EN ISO 16576		2.0
Oxidation stability	H	En 15751	20	-