

EN 590 Gas Oil Specifications

Gas oil, also known as red diesel, is used for untaxed vehicles, stationary diesel engines and small boiler and furnace applications. It comes with a red dye, which is used to mark the product. The following table shows the chemical and physical specifications of gas oil that are required by the EN590 standard:

Parameter	Unit	Min	Max	Typical
Appearance	Clear & bright, Cherry Red, Free from visible sediment.	Pass		
Ash content	% (m/m)	-	0.01	<0.001
Carbon	% (m/m)	-	-	87
Carbon residue(Ramsbottom on 10% residue)	% (m/m)	-	0.3	0.1
Cetane number	-	45	-	48
Cold filter plugging point(1) Summer	°C	-	-4	-8
Cold filter plugging point(1) Winter	°C	-	-12	-14
Copper corrosion(3 hrs at 50°C)	Class	-	1	1a
Density at 15°C	kg/m ³	0.82	-	0.86
Distillation recovery at 250°C	% (v/v)	-	65	42
Distillation recovery at 350°C	% (v/v)	85	-	92
Fatty acid methyl ester (FAME)	% (v/v)	-	7	<0.1
Flashpoint (PMCC)	°C	56	-	>62
Gross specific energy (MJ/kg)	MJ/kg	-	-	45.4
Gross specific energy (MJ/litre)	MJ/litre	-	-	38.8
Hydrogen	% (m/m)	-	-	12.75
Kinematic viscosity at 40°C	mm ² /s	1.5	5.5	3
Lubricity (HFRR)	µm	-	460	<460
Mean specific heat capacity over 0 – 100°C	KJ/kg °C	-	-	2.05
Nitrogen	% (m/m)	-	-	0.01 – 0.05
Oxidation stability 0.0 – 7.0% FAME	g/m ³	-	25	-
Oxidation stability 2.0 – 7.0% FAME	h	20	-	-
Particulate content	mg/kg	-	24	<10
Strong acid number	mg KOH/g	-	nil	nil
Sulphur content	% (m/m)	-	0.002	<0.0015
Volume correction factor	per °C	-	-	0.00081
Water content	mg/kg	-	200	<100

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- HVO Fuel
- Biodiesel
- CHP Biofuel
- Home Heating Oil
- Ancillary Products
- Red Diesel
- FAME Biodiesel
- Industrial Lubricants
- Industrial Heating Oil
- Carbon Offset Red Diesel
- Marine Lubricants
- Industrial Lubricants
- Marine Gas Oil
- Marine Diesel Oil
- Hydraulic Oil
- Premium Paraffin
- Peat Briquettes
- AdBlue

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- Domestic Oil Tank Removal
- Industrial Tank Cleaning
- Marine Tank Cleaning
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