



# Heating Gas Oil

Meets BS 2869 2010

Table 1 Characteristics of middle distillate fuels – Part 2: Class D – Middle distillate fuels for stationary applications

Property	Unit	Limit		Test method
		Min.	Max.	
Kinematic viscosity at 40 °C	mm <sup>2</sup> /s	1.50	5.00	BS EN ISO 3104
Density at 15 °C	kg/m <sup>3</sup>	820.0	—	BS EN ISO 3675 or BSENISO
Cetane number or Derived cetane number	—	45.00	—	BS EN ISO 5165 or BS 2000-498
Cetane index <sup>A)</sup>	—	45.00	—	BS EN ISO 4264
Carbon residue <sup>B)</sup> (micro) [10% (V/V) distillation bottoms]	% (m/m)	—	0.30	BS EN ISO 10370
Distillation: <sup>C)</sup>				BS EN ISO 3405
recovery at 250 °C	% (V/V)	—	65	
recovery at 350 °C	% (V/V)	85	—	
Flash point	°C	56	—	BS EN ISO 2719
Water content	mg/kg	—	200	BS EN ISO 12937
Particulate content	mg/kg	—	24	IP 415
Ash content	% (m/m)	—	0.01	BS EN ISO 6245
Sulfur content	% (m/m)	—	0.10	BS EN ISO 8754
Copper corrosion (3 h at 50 °C)	class	—	1	BS EN ISO 2160
Cold filter plugging point □(CFPP) <sup>D)</sup> □:	°C			BS EN 116
Summer (16 March to 15 November)		—	-4	
Winter (16 November to 15 March)		—	-12	
Strong acid number	mg KOH/g	—	zero	BS ISO 6618
Lubricity, corrected mean wear scar diameter (wsd 1.4) at 60 °C <sup>E)</sup>	µm	—	460	BS 2000-450
Oxidation stability: 0.0–7.0% FAME <sup>F)</sup>				
2.0–7.0% FAME	g/m	—	25	BS 2000-388
	<sup>3</sup> h	20	—	BS EN 15751
FAME content <sup>G)</sup>	% (V/V)	—	7.0	BS EN 14078

<sup>A)</sup> As an alternative to cetane number, for quality control purposes, the cetane index (calculated in accordance with BS EN ISO 4264) may be used for fuels that do not contain additives to improve ignition quality.

<sup>B)</sup> The limiting value for carbon residue is based on product prior to addition of ignition improver, if used. If a value exceeding the limit is obtained on a finished fuel, alkyl nitrate presence should be calculated in accordance with BS EN ISO 13759. If an ignition improver is present, the limit value for carbon residue of the product shall not be applied. Use of additives does not exempt fuels from conforming to the maximum 0.30% (m/m) carbon residue prior to addition.

<sup>C)</sup> Calculation of the cetane index will also require distillation values at 10%, 50% and 90% (V/V) recovery points.

□<sup>D)</sup> Detailed seasonality requirements are given in Clause 8.□

<sup>E)</sup> This requirement is for low sulfur contents (500 mg/kg sulfur maximum) only.

<sup>F)</sup> Oxidation stability by BS 2000-388 is a requirement for all fuels. BS EN 15751 is an additional requirement for fuels containing FAME at concentrations at or exceeding 2.0% (V/V).

<sup>G)</sup> FAME meets the requirements of BS EN 14214.





