



NICHOLL OILS

BS2869:2017 - Class D - Middle distillate fuel for heating applications.

Property	Unit	Limits		Test Method	Typicals
		Min.	Max.		
Kinematic viscosity at 40°C	mm²/s	2.00	5.00	IP 71	2.50
Density at 15°C	kg/m³	820.0	—	IP 365	822.0
Carbon residue (micro) [10 % (V/V) distillation bottoms]	% (m/m)	—	0.30	ASTM D 4530	<0.01
Distillation:				ASTM D86	
recovery at 250°C	% (V/V)	—	65		55
recovery at 350°C	% (V/V)	85	—		88
Flash point	°C	45	—	IP 34	55
Water content	% (m/m)	—	0.020	IP 438	0.004
Particulate content	mg/kg	—	24	IP 415	<5
Ash content	% (m/m)	—	0.01	IP 4	<0.001
Sulfur content	% (m/m)	—	0.10	IP 336	0.03
Copper corrosion (3h at 50°C)	class	—	1	BS EN ISO 2160	1a
Cold filter plugging point (CFPP) ^{a)}	°C			IP 309	
Summer (16 March to 15 November)		—	-4		-22
Winter (16 November to 15 March)		—	-12		-22
Strong acid number	mg KOH/g	—	Zero	IP 139	Zero
Lubricity, corrected mean wear scar diameter (wsd 1.4) at 60 °C	µm	—	460	BS 2000-450	340
Oxidation stability:					
0.0-7.0% FAME ^{b)}	g/m³	—	25	BS 2000-388	8
2.0-7.0% FAME ^{c)}	h	20	—	BS EN 15751	—
FAME content	% (V/V)	—	7.0	BS EN 14078	Zero Added

Specifications that are additional to BS2869:2017 are listed below

Appearance	Visual	Clear & Bright	D 4176	Clear & bright
Cloud Point	°C	-4	IP 219	-10
Odour		Marketable		Marketable

Ultra35 heating Gas oil can only be used in heating applications, it is not to be used as a fuel for any engine, motor or other machinery.

^{a)} Ultra35 exceeds winter grade all year round

^{b)} 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)

^{c)} For diesel fuel containing FAME above 2 % (V/V) this is an additional requirement. Not relevant for this specification as zero FAME added

Additional Data

Specific Energy (calorific value), MJ/kg of Oil	Gross - 45.74	Net - 42.84
Gross Heat of Combustion, Cal/g	Gross - 10925	Net - 10235
Carbon / Hydrogen (% m/m)	Carbon - 86.4%	Hydrogen - 13.6%
Nitrogen (% m/m)	<0.1%	
Equivalent to MJ / kg of CO ₂ produced	14.4 MJ / kg CO ₂	

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