

ULS Gas Oil

Description:

Automotive middle distillate fuel for non-road mobile machinery.

Specification:

BS EN 2869:2017 (Class A2)

Date of issue:

28th September 2017

Property	Test Method	Units	Limits	
			Min	Max
Appearance (@Ambient Temp)	Visual		Clear and bright. Free from Visible Sediment & Water.	
Ash content (note 6)	BS EN ISO 6245	% (m/m)		0.01
Carbon Residue: on (10% distillation residue) note 4	BS EN ISO 10370	% (m/m)		0.30
Cetane Number (note 3)	BS EN ISO 5165 or BS EN ISO 20200-498		45	
Cetane Index	BS EN ISO 4264		45	
Cold Filter Plugging Point (Note 2) Winter Summer	BS EN 116	°C °C		-12 -4
Copper Corrosion (3hr @ 50°C)	BS EN ISO 2160	Class		1
Density @ 15°C	BS EN ISO 3675 or 12185	kg/m ³	820.0	
Distillation: (Note 5) Recovery @ 250°C Recovery @ 350°C	BS EN ISO 3405	% (V/V) % (V/V)	85.0	65.0
Fatty acid methyl ester (FAME) content	BS EN 14078	% (v/v)		7.0
Flash Point	BS EN ISO 2719	°C	56	
Kinematic Viscosity @ 40°C	BS EN ISO 3104	mm ² /s	2	5
Lubricity, Corrected Mean Wear Scar Diameter (wsd 1.4) @ 60°C	BS 2000 - 450	µm		460
Oxidation stability: 0.0% - 7.0% FAME (Note 7) 2.0 - 7.0% FAME	BS 2000-388 BS EN 15751	gm ³ h	20.0	25.0
Sediment / Total Contamination (or Particulate Matters)	IP 415	mg/kg		24.0
Sulphur content (note 6) At manufacture / purchase At point of final distribution	BS EN ISO 20846 or 20884	mg/kg ppm ppm		10 20
Strong Acid Number	BS 6618	mg KOH/g		Zero
Water content	BS EN ISO 12937	mg/kg		200.0

Please note: This document is accurate at the date of issue and supersedes all previous issues. This specification is not a guarantee.

Notes:

1. Latest test methods or technical equivalent used.
2. Unless otherwise advised the following seasonal dates apply: Summer: 16/03 - 15/11, Winter: 16/11 - 15/03
3. May contain an ignition improver in which case carbon residue test is not valid and the cetane number minimum will apply.
4. 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.
5. Calculation of the cetane index will also require distillation values at 10%, 50% and 90% (V/V) recovery points.
6. Sulphur measurements include HMRC approved marker.
7. 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).
8. FAME meets the requirements of BS EN 14214.

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