



Esso Super Plus ULS Unleaded

Marketing Technical Bulletin

Product	Appearance	Specification *
Esso Super Plus Unleaded ULS Motor Gasoline	Clear liquid, pale yellow in colour	BS 7800:2006

* Esso Superplus Unleaded Gasoline also complies with The Motor Fuel (Composition and Content) Regulations 1999 and HM C&E requirements for "Ultra Low Sulphur Petrol".

Application

Spark ignition engines (chiefly automotive vehicles), marine engines (pleasure craft), mobile power sources (power generators), chain saws, lawn mowers and other horticultural equipment. **DO NOT USE FOR AVIATION PURPOSES.**

Quality Data

Parameter (BS Methods)	Units	BS or HM Customs & Excise Limit		Esso Typical
		Min	Max	
Appearance	Visual	Clear and bright	-	Clear and bright
Density @ 15 °C	kg/m3	720	775	739.2
Vapour pressure @ 37.8°C	kPa	70.0 (W) 45.0 (S)	100.0 (W) 70.0 (S)	98 (W) 68(S)
Vapour Lock Index - Intermediate	-	-	1250	1218 (Aln) 1154 (Sln)
Distillation:				
Evaporated @ 70°C	% (V/V)	22.0 (W) 20.0 (S)	50.0 (W) 48.0 (S)	45 (W) 38 (S)
Evaporated @ 100	% (V/V)	46.0	71.0	62
Evaporated @ 150	% (V/V)	75.0	-	92
Final Boiling Point	°C	-	210	181
Residue	% (V/V)	-	2	1
Copper strip corrosion	Rating	Class 1	-	Class 1
Sulphur content	mg/kg	-	50	48
Gum content (solvent washed)	mg/100ml	-	5	0.3
Oxidation stability	mins	360	-	>360
Lead content	mg/l	-	5	Nil
Benzene content	% (V/V)	-	1.0	0.6
Octane Number - Research (RON)	-	97.0	-	97.4
Octane Number - Motor (MON)	-	86.0	-	86.2
Hydrocarbon type				
Olefins	% (V/V)	-	18	9.7
Aromatics	% (V/V)	-	35	32.8
Oxygen content	% (m/m)	-	2.7	0.9
Methanol	% (V/V)	-	3.0	
Ethanol		-	5.0	
Iso-propyl alcohol		-	10.0	
Iso-butyl alcohol		-	10.0	
Tert-butyl alcohol		-	7.0	
Ethers (5 or more carbon atoms)		-	15.0	
Other oxygenates		-	10.0	

Note: Volatility Limits quoted are the legal dates for distribution from the refinery:

Seasonality Dates

Grade	Ex Service Station
W Winter Grade	16 October to 15 April inclusive
Sln Intermediate Grade (Spring)	16 April to 31 May inclusive
S Summer Grade	1 June to 31 August inclusive
Aln Intermediate Grade (Autumn)	1 September to 15 October inclusive

Additional Technical Information

Specific Energy	Gross Net	Units	UL97
		MJ/kg	47.38
		MJ/kg	44.23

Calculated using BS2869

'Typicals' are expected qualities based on recent historical data and should therefore not be considered a guarantee of quality

For Health & Safety information refer to the most current version of the product MSDS