



Esso Energy Unleaded ULS

Marketing Technical Bulletin

Product

Esso Unleaded Premium ULS Motor Gasoline

Appearance

Clear liquid, pale yellow in colour

Specification *

BS EN 228: 2008

* Esso Unleaded Premium Gasoline also complies with The Motor Fuel (Composition and Content) Regulations 1999 and HM Revenue and Customs 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 Revenue & Customs Limit		Esso Typical
		Min	Max	
Octane Number - Research (RON)	-	95.0	-	96.2
Octane Number - Motor (MON)	-	85.0	-	85.6
Lead content	mg/l	-	5	Nil
Density @ 15 °C	kg/m ³	720	775	731
Sulphur content	mg/kg	-	10	4
Oxidation stability	min	360	-	>360
Gum content (solvent washed)	mg/100ml	-	5	<1
Copper strip corrosion	Rating	Class 1	-	Class 1
Appearance	Visual	Clear and bright	-	Clear and bright
Hydrocarbon type content				
Olefins	% (V/V)	-	18.0	10.8
Aromatics	% (V/V)	-	35.0	33.2
Benzene content	% (V/V)	-	1.0	0.43
Ethanol content	% (m/m)	-	5	0 or 4.8%
MTBE / Ethers containing 5 or more carbon atoms	% (V/V)	--	15.0	0.2
Vapour Pressure @ 37.8°C	KPa	70.0 (W) 45.0 (S)	100.0 (W) 70.0 (S)	94 (W) 66 (S)
Vapour Lock Index - Intermediate	-	-	1250	1219 (SIn) 1220 (Aln)
Distillation: Evaporated @ 70°C	% (V/V)	22.0 (W) 20.0 (S)	50.0 (W) 48.0 (S)	45 (W) 39 (S)
Evaporated @ 100°C	% (V/V)	46.0	71.0	63
Evaporated @ 150°C	% (V/V)	75.0	-	93
Final boiling point	°C	-	210	181
Distillation residue	% (V/V)	-	2	0.9

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
SIn 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	All Grades
		MJ/kg	47.48
		MJ/kg	44.31

Calculated using BS2869

'Typicals' are expected qualities based on recent historical production 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