## Unleaded Petrol BS EN 228:2008

| Property | Units | Limits |  | Test Method |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Min | Max |  |
| Research Octane Number, RON |  | 95,0 | - | BS EN ISO 5164 |
| Motor Octane Number, MON |  | 85,0 | - | ISO 2163 |
| Lead Content | mg/l | - | 5,0 | BS EN 237 |
| Density @ $15^{\circ} \mathrm{C}$ | $\mathrm{kg} / \mathrm{m}^{3}$ | 720,0 | 775,0 | BS EN ISO 3675 / 12185 |
| Sulphur Content | $\mathrm{mg} / \mathrm{kg}$ |  | 10,0 | BS EN ISO 20846 / 20847 / 20884 |
| Oxidation Stabilty | Minutes | 360,0 | 0,0 | BS EN ISO 7536 |
| Existent Gun Content | mg/100ml | - | 5,0 | BS EN ISO 6246 |
| Copper Corrosion | $3 \mathrm{hr} @ 50^{\circ} \mathrm{C}$ |  |  | BS EN ISO 2160 |
| Appearance |  | Clear | right | Visual |
| Hydrocarbon Type Content |  |  |  |  |
| Olefin Content | \% v/v | - | 18,0 | ASTM D1319 / BS EN 14517 |
| Aromatics Content | \% v/v | - | 35,0 | ASTM D1319 / BS EN 14517 |
| Benezene Content | \% v/v | - | 1,0 | BS EN 12177 / 238 / 14571 |
| Oxygen Content | \% m/m | - | 2,7 | BS EN 1601 / 13132 |
| Oxygenates Content |  |  |  |  |
| Methanol |  | - | 3,0 |  |
| Ethanol - including Bioethanol | \% v/v | - | 5,0 |  |
| Iso-Propyl Alcohol | \% v/v | - | 10,0 |  |
| Iso-Butyl Alcohol | \% v/v | - | 10,0 |  |
| Tert-Butyl Alcohol | \% v/v | - | 7,0 |  |
| Ethers (5 or more C atoms) | \% v/v | - | 15,0 |  |
| Other Oxygenates | \% v/v | - | 10,0 |  |
| Vapour Pressure (DVPE) |  |  |  |  |
| Summer (1 June - 31 August) | kPa | 45,0 | 70,0 |  |
| Intermediate (1 September - 15 October) | kPa | 45,0 | 100,0 |  |
| Winter (16 October - 15 April) | kPa | 70,0 | 100,0 |  |
| Intermediate (16 April - 31 May) | kPa | 45,0 | 100,0 |  |
| Vapour Lock Index ( $10 \mathrm{VP}+\mathbf{7 E 7 0}$ ) |  |  |  |  |
| 16 April - 31 May |  |  | 1250,0 |  |
| 1 September - 15 October |  |  | 1250,0 |  |
| \% Evaporated @ 70 ${ }^{\circ} \mathrm{C}$, E70 |  |  |  | BS 2000-123 |
| Transition (16 April - 31 May) | v/v | 20,0 | 50,0 |  |
| Summer (1 June - 31 August) | v/v | 20,0 | 48,0 |  |
| Transition (1 September - 15 October) | v/v | 20,0 | 50,0 |  |
| Winter (16 October - 15 April) | $\mathrm{v} / \mathrm{v}$ | 22,0 | 50,0 |  |
| \% Evaporated @ $100^{\circ} \mathrm{C}, \mathrm{E} 100$ | v/v | 46,0 | 71,0 | BS 2000-123 |
| \% Evaporated @ $150^{\circ} \mathrm{C}$, E150 | v/v | 75,0 | - | BS 2000-123 |
| Final Boiling Point (FBP) ${ }^{\circ} \mathrm{C}$ | ${ }^{\circ} \mathrm{C}$ | - | 210 | BS 2000-123 |
| Distillation Residue | \% v/v | - | 2 | BS 2000-123 |
| $\frac{\text { Notes }}{1 . ~ T h e ~ f u e l ~ c o v e r e d ~ b y ~ t h i s ~ s t a n d a r d ~ i s ~ i n t e n d e d ~ f o r ~ u s e ~ i n ~ p e t r o l-e n g i n e d ~ r o a d ~ v e h i c l e s ~ w h i c h ~ r e q u i r e ~ h i g h ~ o c t a n e ~}$ |  |  |  |  |
| 1. The fuel covered by this standard is intended for use in petrol-engined road vehicles which require high octane unleaded petrol. |  |  |  | which require high octane <br> dential agreements with individual |

