MOTOR GASOLINE			
BHARAT STAGE II			
TEST	**METHOD**	**SPECIFICATION**	
Grade		**MG 88**	**MG 93**
Density @ 15°C, kg/m^3	IS 1448 P :16	710 – 770	710 – 770
Colour, Visual		Orange	Red
Copper Strip Corrosion (3 hrs. @ 50°C)	IS 1448 P :15	Not more than No. 1	Not more than No. 1
Existent gum, gm/m^3	IS 1448 P :29	Max. 40	Max. 40
Potential gum, gm/m^3 (1)	IS 1448 P :147	Max.50	Max.50
Lead Content, (as Pb), gm/l	IP : 352	Max. 0.013	Max. 0.013
Research Octane Number (RON)	IS 1448 P :27	Min. 88	Min. 93
Anti-knock index (AKI)	(RON+MON)/2	Min. 84	Min.88
Reid Vapour Pressure@ 38°C, Kpa	IS 1448 P :39	Min. 35	Min. 35
		Max. 60	Max. 60
Distillation :	IS 1448 P :18		
Recovery upto 70°C, %v		10-45	'10-45
Recovery upto 70°C, %v		40-70	40-70
Recovery upto 180°C, %v		Min. 90	Min. 90
FBP, °C		Max. 215	Max. 215
Residue, %v		Max. 2	Max. 2
Benzene content, % v	ASTM D3606	Max. 3	Max. 3
Sulphur, %wt.	ISO 14596	Max. 0.050	Max. 0.050

Vapour Lock Index (VLI):Summer [2]	Note (3)	Max. 750	Max. 750
other months (Winter)		Max. 950	Max. 950
Water Tolerance of gasoline alcohol blends, temperature for phase separation, °C,			
a) Summer[2]		Max. 10	Max. 10
b) Winter [4]		Max. 10	Max. 0
Engine intake system cleanliness [5]	As per IS 2796	Report - MFA used	Report - MFA used
Oxygen content, %wt.	IS 2796:2008 Annexure C & D	Max. 2.7	Max. 2.7
Oxygenates, %v	IS 2796:2008 Annexure C		
a) Methanol		Nil	Nil
b) Ethanol		Max. 5	Max. 5
c) Iso-propyl alcohol		Max. 10	Max. 10
d) Iso-butyl alcohol		Max. 10	Max. 10
e) Tertiary-butyl alcohol		Max. 7	Max. 7
f) Ethers containing 5 or more `C' atoms per molecule		Max. 15	Max. 15
g) Other Oxygenates		Max. 8	Max. 8
Conforms to BIS spec IS:2796-2008 For Motor Gasoline			

Note :

1) This test shall be carried out on the Gasoline before addition of Multifunctional detergent/dispersants additives, as these may interfere with the test.
2) Summer shall be the period from May to July.
3) VLI = 10RVP + 7E70
4) In winter it is expected that temperature may be lower than 0°C in the northern hilly region and hence phase separation shall not take place till -10°C.
5) Use of multi-functional additives (MFA) is a requirement for assuring adequate fuel system and intake system cleanliness performance in engines. Refiners/Marketers of motor gasoline have to ensure the MFA has proper credentials from internationally accepted test laboratories/authorities.