

CHAPTER 10 : SPECIFICATIONS OF REFERENCE FUEL TO BE USED FOR EMISSION TESTING OF VEHICLES EQUIPPED WITH A PETROL ENGINE

1 Scope :

This Chapter specifies the characteristics of the reference fuel to be used for the test mentioned in para 3.2 of Chapter 3 and para 3.2 of Chapter 9 of this Part.

2 The reference fuel viz. leaded gasoline, to be used for emission testing of vehicles equipped with spark ignition engine should meet the following specifications :

	Characteristics	Limits	Method of test (Ref. to P: IS 1448)
2.1	Research Octane Number	87.0 min	P:26
2.2	Specific Gravity at 288° K	0.73-0.75	P:16
2.3	Reid Vapour pressure, kg/cm ²	0.45 to 0.65	P:39
2.4	Distillation, Initial boiling point 10 % recovery 50 % recovery 90 % recovery Final boiling point Residue, % vol.	K 298 - 318 323 - 343 358 - 378 393 - 433 473 max. 2 max.	P:18
2.5	Hydrocarbon analysis, % vol. Olefins Aromatics Saturates	20 max 45 max balance	P:23
2.6	Oxidation stability, minutes	480 min.	P:28
2.7	Existant gum, mg/100 ml	4.0 max	P:29
2.8	Sulphur content, % mass	0.10 max.	P:34
2.9	Lead content, g/l	0.40 max.	P:38 or 82