



energising life

HIGH SPEED DIESEL OIL - II

TEST	METHOD	SPECIFICATION
Density @ 15°C, kg/m ³	P : 16	820 to 860
Colour (ASTM) *	ASTM D 1500	Max. 5
Water Content, %v	P : 40	Max. 0.05
Flash Point (Abel), °C**	P : 20	Min. 35
Viscosity (Kinematic) @ 40°C, cSt	P : 25	Min. 2.0 Max. 5.0
Pour Point, °C (4)	P : 10	Max. 3 (Winter), Max. 15 (Summer)
Copper Strip Corrosion (3 hr. @ 100°C)	P : 15	Not worse than No. 1 Strip
Total Sulphur, mg/Kg	ASTM D : 4294	Max. 500
Acidity (Total), mg KOH/g	P : 2	Max. 0.2
Acidity (Inorganic), mgKOH/g	P : 2	Nil
Sediment by Extraction, %wt	P : 30	Max. 0.05
Ash, %w	P : 4	Max. 0.01
Carbon residue (Ramsbottom) on 10% residue, %wt.	P : 8	Max. 0.30
CFPP, °C(4)	P : 110	Max. 6 (Winter), Max. 18 (Summer)
Cetane Number (3)	ASTM D 4737	Min 46
or		
Cetane Index	ASTM D 4737	Min 46
Total Sediments, mg/100 ml	Appendix A of IS:1460-1974	Max. 1.6
Distillation : Recovery @ 350°C, %v Recovery @ 370°C, %v	P : 18	Min. 85 Min. 95
Lubricity (HFRR) wsd,@ 60°C, microns	ISO 12156-1 / ASTM D 6079	Max. 460
Conforms to BIS : 1460:2000 specifications for High Speed Diesel Oil.		



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NOTES [Nos. as per BIS] :

(1) This limit is applicable prior to addition of cetane improvers, if used. In case a value exceeding the limit is obtained on finished fuels in the market, ASTM D4046 shall be used to establish the presence of nitrate containing cetane number improvers. In such case the present limit for carbon residue cannot be applied. However, the use of cetane number improvers does not exempt the manufacturer from meeting this requirement prior to the addition of additives

(3) For Fuel processed from Assam crude, Cetane number and Cetane index is relaxed by 3 units.

(4) Winter shall be the period from November to February in central and northern plains of India (both months inclusive) and rest of the months of the year shall be called as summer.

(6) For fuel processed from Assam crude, the density range is relaxed to 820-870 and 820-855 for Bharat Stage II and Bharat Stage III grades respectively.

(10) This test shall be carried out only at the refinery or manufacturer's end.

N.B. :* In addition to BIS specification BPCL(R) controls these parameters for better customer satisfaction.

**** For High Flash H.S.D. as required by ONGC, the specification for Flash Point (P.M.C.C.) is min. 66°C whereas all other specifications remain the same as Normal H.S.D.**

Properties given above are typical. We try our best to make products to meet customer requirements.