



ADINATH CHEMICALS AHMEDABAD, INDIA

Transformer Oil IS 335 & IS 12463

S. No.	Test Parameters	Test Method	Specification Limit	IS 335	IS 12463
1.	Appearance		A representative sample of the oil shall be examined in a 100 mm thick layer at 27°C	The Oil shall be clear, transparent and free from suspended matter or sediments	The Oil shall be clear, transparent and free from suspended matter or sediments
2.	Density @29.5°C (Max.)	g/ml	IS 1448 P 16 1997	0.89	0.89
3.	Kinematic Viscosity @27°C (Max.)	cSt	IS 1448 P 25 – 1996	27	27
4.	Inter facial Tension @27°C (Min.)	N/m	IS 6104 -1971	0.04	0.04
5.	Flash Point PMCC (Min)	°C	IS 1448 P 21 – 1970	140	140
6.	Pour Point, (Max.)	°C	IS 1448 P 10 – 1970	-6	-6
7.	Neutralization Value A.)Total Acidity (Max.) B.)Inorganic Acidity/ Alkalinity	mg. koh/gm	IS 1448 2 – 1967	0.03 Nil	0.03 Nil
8.	Corrosive Sulphur, Copper Strip, @ 140°C,for 19 hrs	IEC 733	IS 335 Annexure B	Non – Corrosive	Non – Corrosive
9.	Electric Strength Breakdown Voltage (BDV)	7.12	IS 6792 – 1972		
	A.)New Unfiltered Oil (Min)	kV		30	30
	B.)After Filtration (Min)	kV		60	60
10.	Dielectric Dissipation Factor tan Δ at 90 °C (Max)	7.13	IS 6262 - 1971	0.002	0.002
11.	Specific Resistance (Resistivity)	7.8	IS 6103 – 1971		
	a) at 90 °C (Min)	ohm - cm		35 x 10 ²	35 x 10 ²

	b) at 27 °C (Min)	ohm – cm		1500 x 10 ²	1500 x 10 ²
12.	Oxidation Stability at 100 °C, for 164 Hours		IS 335 Annexure C		
	a) Total Acidity (Max)	mg KOH / gm		0.4	0.4
	b) Total Sludge (Max)	%		0.1	0.1
13.	Ageing characteristics after accelerated ageing (open beaker method with copper catalyst)		IS 12177 – 1987 Method A		
	A).Specific Resistance (Resistivity) At 27°C Min At 90°C Min	ohm – cm ohm – cm		2.5 x 10 ² 0.2 x 10 ²	2.5 x 10 ² 0.2 x 10 ²
	B).Dielectric Dissipation Factor tan Δ at 90 °C (Max)			0.20	0.20
	A.)Total Acidity (Max)	mg KOH / gm		0.05	0.05
	B.)Total Sludge (Max)	%		0.05	0.05
14.	Presence of Oxidation Inhibitor (Max)	%	IS 13631 – 1982	The oil shall not contain antioxidant additive	0.3
15.	Water Content (Max)	ppm	IS 13567 – 1992	50	50
	Oxidation Stability, (Rotating Bomb Test) (Min)	Minutes		N.A.	195

REMARKS: Complies to IEC – 60296 specifications.

Shelf Life : 24 months, if stored in a clean, cool and dry area.

Packaging : MS Drums