

Specifications for Transformer (Insulating)Oil , Make: Electrol / Transol

The insulating oil should meet the following values given in the Table 1 and Table 2 before being filled into the tank

Table 1 : Dielectric Strength

Breakdown voltage	
Operating voltage (KV)	Transformers having been on service, IEC 156 , KV/2.5mm
> 170	>50
70-170	>40
<70	>30

Material specification for insulating oil

This material specifications describes the requirements on unused, uninhibited, insulating mineral oil of standard quality and grade. It essentially corresponds to IS 335. The oil may be used in transformers and reactors

Requirements on Oil properties

Sl.No	Characteristic	Requirement	Method of Tests	Remarks
1	Appearance	The oil shall be clear and transparent and should be free from suspended matter of sediments	A representative sample of oil shall be examined in a 100mm thick layer at 27 degC	
2	Density at 29.5 degC max	0.89 g/cm3	IS 1448 (P:16)	
3	Kinematic Viscosity Max at		IS 1448 (P:25)	
a)	27 degC	27 cSt		
4	Interfacial tension at 27 degC Min	0.04 N/m	IS 6104	
5	Flash Point Pensky Marten (closed) Min	150 degC	IS 1448(P:21)	
6	Pour point Max	-10 degC	IS 1448 (P:10)	
7	Netralisation value			Alcholic pottasium hydroxide solution of 0.02N should be used in place of 0.1N indicated in test method
a)	Total acidity Max	0.02 mg KOH/gm	IS 1448(P:2)	
b)	Inorganic acidity / alkalinity	Nil	IS 1448(P:2)	
8	Corrosive Sulphur	Non corrosive	As per IS 335	

(store copy)

Alheg (1/2)
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