

Product Data

ZIE TRANSFORMER OIL

IS:335-2018

Description

Zie Transformer oil series are Uninhibited Transformer oils and they are carefully formulated by refined hydro-cracked/ hydro-treated Mineral insulating oils

Manufactured with selected blend of premium quality base oil and additives

Zie Uninhibited Transformer oils are intended for use in equipment where normal oxidation resistance is required

Application

- highly recommended for all grades of Power Transformers, Distribution Transformers, Circuit Breakers, Oil filled switches X-ray equipment.
- Used in the places where Higher Flash point, resulting on Low evaporation losses and better safety
- low sludge and acidity formation, in both ageing and oxidation tests.

Specification

Meeting the requirements of :

- IS 335:2005, IEC 60296:2003,
- (superseding IEC 296:1982 Class I & Class II),
- BS 148:1998 Class I & Class II
- JIS C2320 Class I.

Typical Physical Characteristics

S.N.	PROPERTY	TEST METHOD	LIMITS
1- Function:			
1	Viscosity at - 40°C	IS-1448 (Part 25)	15 mm ² /s. Max
2	Viscosity at - 0°C	IS-1448 (Part 25)	1800 mm ² /s, Max
3	Viscosity at - 30°C	IS-1448 (Part 25)	-
	Viscosity at - 40°C	IS-16084	-
4	Pour Point	IS1448 (Part 10 / Sec 2)	- 10°C Max
5	Water Content	IEC 60814	1) 30 mg/kg Max for Bulk Supply
			2) 40 mg/kg Max for Drum Supply
6	Breakdown voltage	IS 6792	i) 30 KV Min Delivered ii) 70 KV after Treatment
7	Density at 20°C	IS 1448 (Part 16)	0.895 g/ml Max
8	DDF at 90°C	IS 16086 / IEC 60247	0.005, Max
9	Particle content	IS 13236	No general requirement
2 - Refining / Stability			
10	Appearance	-	Clear, free from sediment and suspended matter
11	Acidity	IEC 62021 - 1	0.01mg KOH / gm Max.
12	Interfacial Tension mN/m	ASTM D971	No general requirement
13	Total Sulphur Content	ISO 14596 or ASTM D4294	No general requirement
14	Corrosive Sulphur	DIN 51353	Not corrosive
15	Potentially Corrosive Sulphur	IS 16310	Not corrosive
16	DBDS	IS 16497 (Part 1)	Not detectable (< 5 mg/kg)
17	Inhibitors of IEC 60666	IS 13631	(U) Uninhibited Oil; Not detectable (< 0.01%)
18	Metal passivator additives of IEC 60666 to IS13631	IS 13631	Not detectable (< 5 mg/kg) or as agreed upon with the purchaser
19	Other additives	-	-
20	2 - Furfural & related comp, content	IS 15668	Not detectable (< 0.05mg/kg) for each individual compound
3 - Performance :			
21	Oxidation Stability	IS 12422 (method C)	
		Test duration (U) Uninhibited Oil: 164 h	
a)	Total acidity	1.9.4 of IS 12422	1.2 mg KOH/gm Max
b)	Sludge	1.9.4 of IS 12422	0.8% Max
c)	DDF at 90°C	1.9.4 of IS 12422	0.500 Max
22	Gassing tendency	IEC 60628:1985, Method A	No general requirement
23	ECT	See 6.14	No general requirement
4 - Health, Safety and Environment:			
24	Flash point	IS 1448 (Part 21)	135°C, Min
25	PCA content	IP 346	3.0 %, Max
26	PCB content	IS 16082 / ASTM-D-4059	Not detectable (< 2 mg/kg)

*Subject to usual manufacturing tolerances.

Health & Safety

These oils are unlikely to present any significant health or safety hazard when properly used in the recommended application and good standards of industrial and personal hygiene are maintained.



All reasonable care has been taken to ensure that the information contained in this publication is accurate as at the date of printing. It should be noted however that the information above may be affected by changes occurring subsequent to the date of printing in the blend formulation or methods of application of any of the products referred to or in the requirements of any specification approval relating to any such products.

© 2021Hatec Stolz Ziel. Trademarks used herein are trademarks or Registered trademarks of Hatec Stolz Ziel or one of its subsidiaries.