Transmax I

Premium inhibited transformer insulating oils

Description
Transmax I inhibited transformer oils are severely refined hydro treated virgin mineral insulating oil with highest degree of purity and stability. Transmax I oils are manufactured from carefully selected blend of latest technology feed stocks. Transmax I series of inhibited transformer oils have excellent oxidation stability, high dielectric strength and are used in equipment requiring operations at elevated temperatures and greater oxidation resistance. For normal operations Transmax uninhibited series may be considered.

Applications
Transmax I oils are highly suitable for all grades of power transformers, distribution transformers, circuit breakers, oil filled switches x-ray equipment.

Benefits
- Higher flash point, resulting on low evaporation losses and better safety
- Remarkably low sludge and acidity formation, in both ageing and oxidation tests, results in longer life of oil and equipment.
- Low viscosity oils offering excellent and fast heat transfer
- Very low sulphur and no DBDS content
- Non corrosive

Performance level & standards

Standard	Transmax IA	Transmax I	Transmax IH	Transmax IB
IS 12463:03	☑	☑	☑	☑
IEC 296:82: Class IA & BS 148:98 Class IA	☑	☑	☑	☑
IEC 296:82: Class IIA & BS 148:98 Class IIA	☒	☒	☒	☑
IEC 60296:03 Table 2: I	☒	☑	☑	☑
JS 2320 Class I IEC No 2A	☑	☑	☑	☑
ASTM D3487 Type II	☒	☑	☑	☑

Typical performance data

	Test method	Transmax IA	Transmax I	Transmax IH	Transmax IB
Appearance		B&C, free from suspended impurities			
Odour		Odourless			
Colour, Max	ASTM D1500	0,5			
Density @ 20 °C, gr/ml, Max	BS EN ISO 3675	0,895	0,895	0,895	0,895
Kinematic viscosity, mm^2/s					
• 40°C	BS EN ISO 3104	16,5	12,0	12,0	11,0
• 27 °C	IS 1448 (part-25)	-	-	-	-
• -15°C	BS EN ISO 3104	800	-		-
• -30 °C		-	1800	1800	1800
Flash point, °C PMCC	BS EN ISO 2719	140	135	135	135
Pour point, °C	BS EN ISO 3016	≤-30	≤-40	≤-40	≤-45
Neutralisation value/Acidity, mg KOH/g	IEC 62021-1 BS 148-1998	0,02	0,01	0,01	0,01
Corrosive sulphur					
• Silver strip, 100 °C,18 h	DIN 51353	Non corrosive			
• Cu Strip, 140 °C, 19 h	BS 5680/IS335 Annex B	Non corrosive			
• Cu Strip, 150 °C, 48 h	ASTM D1275-B	Non corrosive			
• Cu Strip & Paper, 150 °C, 72 h	IEC 62535:08	Non corrosive			
Water content, max mg/kg, max	IEC 60814				
• Bulk		20	20	20	20
• Drum		30	30	30	30
Breakdown voltage	IEC & BS EN 60156				
• Delivered (kv), min		30	30	30	30
• After treatment (kv), min		50	70	70	70
Anti-oxidant additives, % Max	IEC 60666/BS 5984	≤0,3%	0,15-0,40	0,15-0,40	0,15-0,40
Oxidation stability, 164 hrs					
• Neutralization value, mg KOH/g	IEC & BS EN 61125	0,25	0,25	0,25	0,25
• Total sludge (%) max	Method A&C	0,01	0,01	0,01	0,01
Oxidation stability, 500 hrs					
• Neutralization value, mg KOH/g	IEC & BS EN 61125	1,5	1,2	0,3	1,2
• Total sludge (%) max	Method A&C	1,0	0,8	0,05	0,8
• DDF @ 90 °C	IEC 60247	-	0,5	0,05	0,5
Oxidation Stability (RBOT), min	ASTM D2112	-	>195	>195	>195
Oxidation Stability-Induction period, hrs	IEC 474	>120	-	-	>120
Dielectric dissipation factor DDF @ 90 °C	IEC 60247	0,002	0,005	0,005	0,005
Gassing tendency @ 50 Hz after 120 min. mm^3/min, method A (max)	BS 5797/ IEC 60628,A	+5	+5	+5	+5
Total PCB content, mg/kg	IEC & BS EN 61619	Not detectable			
Total furans, mg/kg	IEC & BS 61198	0,10	0,10	0,10	0,10
Polycyclic aromatics % mass	BS 2000 (P:346)	3,00			
Interfacial tension, mN/m	ISO 6295	40			
Total Sulphur Content %	BS 2000 Part 373 ISO 14596	No requirement	0,15	0,15	0,15