

## DIVYOL TRANS 40 – STANDARD TRANSFORMER OIL – IEC 60296:2012 – UNINHIBITED

Divyol Trans 40 is an Uninhibited Transformer Oil specially manufactured from carefully selected new generation base oil, possessing excellent electrical properties and conforming to IEC 60296:2012 02 Edition 4.0 Standard Table 2 general specifications. It also meets the ASTM D 1275 B test requirements for corrosive sulphur.

Sr. No.	Characteristics	Unit	Test Method	Specifications
1	Appearance		Visual inspection of oil sample in transmitted light under a thickness of 10 cm at ambient temperature	Clear free from sediment and suspended matter
2	Density at 20 °C max.	g/ml	ISO 3675 or IEC 12185	0.895
3	Kinematic viscosity	mm <sup>2</sup> /sec	ISO 3104	
	a) at 40 °C max.			12
	b) at -30 °C max.			1800
4	Flash point, pmcc min.	°C	ISO 2719	135
5	Interfacial tension at 25 °C min.	mN/m	EN 14210 or ASTM D 971 (where it is a general requirement)	No general requirement 40 min.
6	Electric strength breakdown voltage (BDV)		IEC 60156	
	a) As delivered min.	kV		30
	b) After treatment min.	kV		70
7	Dielectric dissipation factor max. tan Delta at 90° C and 40 to 60 Hz		IEC 60247 or IEC 61620	0.005
8	Corrosive sulphur Silver strip, at 100 °C, for 18 hrs. Copper strip, at 150 °C, for 48 hrs.	°C	DIN 51353 ASTM D 1275 B	Not corrosive
9	Potentially corrosive sulphur		IEC 62535	Not corrosive
10	DBDS	mg/kg	IEC 62697-1 (in preparation)	Not detectable (< 5 mg/kg)
11	Total sulphur content	%	IP 373 or ISO 14596	No general requirement
12	Inhibitors of IEC 60666 (Anti oxidant additives)	%	IEC 60666	(U) Uninhibited oil Not detectable (< 0.01 %)
13	Metal passivator additives of IEC 60666	mg/kg	IEC 60666	Not detectable (< 5 mg/kg)
14	Other additives			Does not contain any additives.
15	Oxidation stability at 120 °C, for 164 hrs.		IEC 61125 Method C	
	a) Total acidity max.	mg KOH/g	1.9.4 of IEC 61125:1992	1.2
	b) Sludge max.	%	1.9.1 of IEC 61125:1992	0.8
	c) Dielectric dissipation factor tan Delta at 90 °C max.		1.9.6 of IEC 61125 Amendment 1 (2004) + IEC	0.5
16	Gassing tendency	3 / PLQ	IEC 60628:1985 Method A	No general requirement
17	PCA content max.	%	IP 346	<3
18	PCB content	mg/kg	IEC 61619	Not detectable (< 2mg /kg)
19	2 – Furfural and related compounds content	mg/kg	IEC 61198	Not detectable (< 0.05 mg/kg) for each individual compound
20	Stray gassing		See 6.22 of IEC 60296	No general requirement
21	ECT		See 6.14 of IEC 60296	No general requirement
22	Particle content		IEC 60970	No general requirement
23	Pour point max.	°C	ISO 3016	-40
24	Acidity max.	mg KOH/g	IEC 62021-1 or IEC 62021-2	0.01
25	Water content	mg/kg	IEC 60814	
	a) Bulk max.			30
	b) Drum max.			40

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