



DIVYOL TRANS 4 IS 335:2018 TYPE II – INHIBITED TRANSFORMER OIL

Divyol Trans 4 is specially manufactured from carefully selected right type of new generation base oil having excellent electrical properties and confirms to IS 335:2018 Type II – Inhibited.

19 Other additives -	Sr. No.	Characteristics	Test Method	Limits	
Viscosity at 0 °C		1. Function			
Viscosity at -30 °C	1	Viscosity at -40 °C	IS-1448 (Part 25)	15 mm²/s, max.	
Viscosity at -40 °C	2	Viscosity at 0 °C	IS-1448 (Part 25)	1800 mm²/s, max.	
Four point	3	Viscosity at -30 °C	IS-1448 (Part 25)	-	
Second Part		Viscosity at -40 °C	IS-16084	-	
2) 40 mg/kg max. for drum supply	4	Pour point	IS1448 (Part 10 / Sec 2)	-10 ℃ max.	
Breakdown voltage	5	Water content	IEC 60814	1) 30 mg/kg max. for bulk supply	
10 10 10 10 10 10 10 10				2) 40 mg/kg max. for drum supply	
Density at 20 °C	6	Breakdown voltage	IS 6792	i) 30 KV min. delivered	
B DDF at 90 °C				ii) 70 KV after treatment	
Particle content	7	Density at 20 °C	IS 1448 (Part 16)	0.895 g/ml max.	
2. Refining / Stability 10 Appearance - Clear, free from sediment and suspended matter 11 Acidity IEC 62021 -1 0.01 mg KOH/g max. 12 Interfacial tension mN/m ASTM D 971 No general requirement 13 Total sulphur content ISO 14596 or ASTM D 4294 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 (I) Inhibited Oil; 0.08 % - 0.40 % 18 Metal passivator additives of IEC 60666 to IS 13631 IS 13631 Not detectable (< 5 mg/kg) or as agreed upon with the purcha 19 Other additives	8	DDF at 90 °C	IS 16086 / IEC 60247	0.005 max.	
Clear, free from sediment and suspended matter	9	Particle content	IS 13236	No general requirement	
11 Acidity		2. Refining / Stability			
Interfacial tension mN/m	10	Appearance	-	Clear, free from sediment and suspended matter	
Total sulphur content ISO 14596 or ASTM D 4294 No general requirement DIN 51353 Not corrosive Potentially corrosive sulphur IS 16310 Not detectable (< 5 mg/kg) Inhibitors of IEC 60666 Metal passivator additives of IEC 60666 to IS13631 Other additives 2-Furfural and related comp. content S. Performance C. Cidation stability IS 12422 (method C) Test duration (I) Inhibited oil: 500 hrs. a) Total acidity IS 1940 of IS 12422 C) DDF at 90 °C Gassing tendency ISO 14596 or ASTM D 4294 No general requirement Not corrosive Not detectable (< 5 mg/kg) Not detectable (< 5 mg/kg) or as agreed upon with the purcha (I) Inhibited oil: 500 hrs. 1.2 mg KOH/g max. Not detectable (< 0.05 mg/kg) for each individual compound 1.2 mg KOH/g max. 1.3 max. 1.4 of IS 12422 0.88 max. 1.5 max.	11	Acidity	IEC 62021 -1	0.01 mg KOH/g max.	
DIN 51353 Not corrosive	12	Interfacial tension mN/m	ASTM D 971	No general requirement	
Potentially corrosive sulphur IS 16310 Not corrosive IS 16497 (Part 1) Not detectable (< 5 mg/kg) IS 13631 (I) Inhibitors of IEC 60666 IS 13631 Not detectable (< 5 mg/kg) or as agreed upon with the purcha of IEC additives Other additives 20 2-Furfural and related comp. content IS 15668 Not detectable (< 0.05 mg/kg) for each individual compound of IEC duration (I) Inhibited oil: 500 hrs. a) Total acidity IS 12422 (method C) Test duration (I) Inhibited oil: 500 hrs. a) Total acidity 1.2 mg KOH/g max. b) Sludge 1.9.4 of IS 12422 0.8% max. c) DDF at 90 °C 1.9.4 of IS 12422 Gassing tendency IEC 60628:1985, Method A No general requirement No general requirement	13	Total sulphur content	ISO 14596 or ASTM D 4294	No general requirement	
16 DBDS IS 16497 (Part 1) Not detectable (< 5 mg/kg)	14	Corrosive sulphur	DIN 51353	Not corrosive	
Inhibitors of IEC 60666 IS 13631 IS 13631 IS 13631 Not detectable (< 5 mg/kg) or as agreed upon with the purchal of the purchase of	15	Potentially corrosive sulphur	IS 16310	Not corrosive	
Metal passivator additives of IEC 60666 to IS13631 IS 13631 Not detectable (< 5 mg/kg) or as agreed upon with the purchal of the purchase of the purc	16	DBDS	IS 16497 (Part 1)	Not detectable (< 5 mg/kg)	
19 Other additives -	17	Inhibitors of IEC 60666	IS 13631	(I) Inhibited Oil; 0.08 % - 0.40 %	
20 2-Furfural and related comp. content IS 15668 Not detectable (< 0.05 mg/kg) for each individual compound	18	Metal passivator additives of IEC 60666 to IS13631	IS 13631	Not detectable (< 5 mg/kg) or as agreed upon with the purchaser	
3. Performance 21 Oxidation stability IS 12422 (method C) Test duration (I) Inhibited oil: 500 hrs. a) Total acidity 1.9.4 of IS 12422 1.2 mg KOH/g 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	19	Other additives	-	-	
21 Oxidation stability IS 12422 (method C) Test duration (I) Inhibited oil: 500 hrs. a) Total acidity 1.9.4 of IS 12422 1.2 mg KOH/g 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	20	2-Furfural and related comp. content	IS 15668	Not detectable (< 0.05 mg/kg) for each individual compound	
Test duration		3. Performance			
(I) Inhibited oil: 500 hrs. a) Total acidity 1.9.4 of IS 12422 1.2 mg KOH/g 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	21	Oxidation stability	IS 12422 (method C)		
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					
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		a) Total acidity	1.9.4 of IS 12422	1.2 mg KOH/g max.	
22Gassing tendencyIEC 60628:1985, Method ANo general requirement23ECTSee 6.14No general requirement		b) Sludge	1.9.4 of IS 12422	0.8% max.	
23 ECT See 6.14 No general requirement		c) DDF at 90 °C	1.9.4 of IS 12422	0.500 max.	
23 ECT See 6.14 No general requirement	22	Gassing tendency	IEC 60628:1985, Method A	No general requirement	
	23	ECT	See 6.14		
4. Health, safety and environment		4. Health, safety and environment			
24 Flash point IS 1448 (Part 21) 135 °C, min.	24	Flash point	IS 1448 (Part 21)	135 ℃, min.	
25 PCA content IP 346 3.0 %, max.	25	PCA content	IP 346	3.0 %, max.	
PCB content IS 16082 / ASTM D 4059 Not detectable (< 2 mg/kg)	26	PCB content	IS 16082 / ASTM D 4059	Not detectable (< 2 mg/kg)	

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