

HyVolt I

Electrical Insulating Oil Marketing Specification

This Type B, TVBU uninhibited electrical insulating oil is produced from a severely hydrotreated naphthenic oil meeting the general specifications of Table 4 as defined in IEC 60296, ed. 5, 2020.

TEST DESCRIPTION	TEST METHOD	SPECIFICATIONS		TYPICAL VALUES
		MIN	MAX	
Function				
Viscosity, mm ² /s at 40°C	ISO 3104		12.0	9.8
Viscosity, mm ² /s at -30°C	ISO 3104		1800	1057
Pour Point, °C	ASTM D5950		-40	-63
Water Content, mg/kg	IEC 60814		30	7
Breakdown Voltage, kV, Before Treatment, 2.5 mm	IEC 60156	30		44
Breakdown Voltage, kV, After Treatment, 2.5 mm	IEC 60156	70		72
Density at 20°C, kg/m ³	ISO 12185		895	879
DDF at 90°C	IEC 60247		0.005	0.001
Refining/Stability				
Color	ISO 2049		1.5	L0.5
Appearance	IEC 60296	PASS		PASS
Acidity, mg KOH/g	IEC 62021-1		0.01	<0.01
Interfacial Tension, mN/m	ASTM D971	40		47
Corrosive Sulfur	DIN 51353	Noncorrosive		Noncorrosive
Corrosive Sulfur	ASTM D1275	Noncorrosive		Noncorrosive
Potentially Corrosive Sulfur	IEC 62535	Noncorrosive		Noncorrosive
DBDS, mg/kg	IEC 62697-1	Not detected (<5)		Not detected
Inhibitors, %	IEC 60666	Not detected (<0.01)		Not detected
Metal Passivator Additives, mg/kg	IEC 60666	Not detected (<5)		Not detected
Other Additives	IEC 60296	See ^a		Not detected
Furfural Content, mg/kg	IEC 61198	Not detected (<0.05)		Not detected
Performance				
Oxidation Stability at 120°C, 164 hours	IEC 61125			
Total Acidity, mg KOH/g			1.2	0.7
Sludge, %			0.8	0.2
DDF at 90°C			0.500	0.037
Health, Safety and Environment				
Flash Point, PMCC, °C	ISO 2719	135		143
PCA Content, %	IP 346		3	<3
PCB Content, mg/kg	IEC 61619	Not detected (<2)		Not detected

HyVolt I is a product of Ergon Refining, Inc.

^a As per IEC 60296, ed. 5, 2020, this product contains no undeclared additives.
May 19, 2020