

Hyvolt II

Electrical Insulating Oil Marketing Specification

This electrical insulating oil is produced from a severely hydrotreated naphthenic oil to meet the specification requirements defined in ASTM D 3487. Hyvolt products have very low pour points and excellent oxidation stability.

TEST DESCRIPTION	TEST METHOD	ERGON MARKETING SPECIFICATIONS		MARKETING VALUES
		MIN	MAX	
Physical Properties				
Viscosity, SUS @ 37.8°C	ASTM D 445		66.0	60.1
Viscosity, SUS @ 98.9°C	ASTM D 445		36.0	34.1
Viscosity, cSt @ 0°C	ASTM D 445		76.0	66.9
Viscosity, cSt @ 40°C	ASTM D 341		12.0	9.6
Viscosity, cSt @ 100°C	ASTM D 341		3.0	2.3
Specific Gravity, 15.6°C	ASTM D 4052		0.9100	0.8865
Flash Point, COC, °C	ASTM D 92	145		154
Color, ASTM	ASTM D 6045		0.5	L0.5
Pour Point, °C	ASTM D 5949		-40	-61
Interfacial Tension, 25°C, dynes/cm	ASTM D 971	40		50
Electrical Properties				
Dielectric Breakdown @ 60 Hz, Disk electrodes, kV	ASTM D 877	30		39
Dielectric Breakdown @ 60 Hz, VDE, kV (2.03-mm) gap	ASTM D 1816	35		45
Power Factor @ 60 Hz, 25°C, %	ASTM D 924		0.05	0.004
Power Factor @ 60 Hz, 100°C, %	ASTM D 924		0.30	0.084
Chemical Properties				
Oxidation Stability	ASTM D 2440			
72 hr: Sludge, % by mass			0.1	<0.01
Total Acid Number, mg KOH/g			0.3	<0.01
164 hr: Sludge, % by mass			0.2	<0.01
Total Acid Number, mg KOH/g			0.4	<0.01
Oxidation Stability (Rotating Bomb Test), minutes	ASTM D 2112	195		226
Oxidation Inhibitor Content, wt%	ASTM D 2668	0.15	0.30	0.26
Corrosive Sulfur	ASTM D 1275 (B)	Noncorrosive		Noncorrosive
Water Content, ppm	ASTM D 1533		35	9
Neutralization Number, mg KOH/g	ASTM D 974		0.03	<0.01
Aniline Point, °C	ASTM D 611	63.0	84.0	76.0
PCB Content, ppm	ASTM D 4059		Not detected	Not detected
Health and Safety Properties (not an ASTM D 3487 requirement)				
Polycyclic Aromatic Compounds, wt%	IP 346		3	<3
Modified Ames Assay	ASTM E 1687	PASS		PASS
FDA Regulation	21 CFR 178.3620 (C)	PASS		PASS

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