



ClearGuard LLC
The Next-Generation in Dielectric Oils



DataGuard - Electrical Insulating Oil - Specification

Data Guard Pro is a high-performance naphthenic insulating fluid, meticulously refined using a patented hydrogenation process. This innovative technology delivers a product with exceptional light color and low odor, making it an ideal choice for industrial and commercial use. Designed to meet the rigorous immersion demands of data centers and Data mining operations, Data Guard Pro ensures reliable performance and efficiency in critical environments.

Test Description	Test Method	Specification Limits		Typical Values
		Min	Max	
Physical				
Aniline Point, (°C)	ASTM D611	63		72
Color	ASTM D1500			L 0.5
Color - Saybolt (units)	ASTM D156			+20
Flash Point, (°C/°F)	ASTM D92	145/293		160/320
Interfacial Tension @ 25°C, (mN/m)	ASTM D971	40		51
Pour Point, (°C)	ASTM D97		-40	-57
Relative Density @ 15°C/15°C	ASTM D1298		0.910	0.884
Viscosity @ 100°C, (cSt)	ASTM D7042		3.00	2.34
Viscosity @ 40°C, (cSt)	ASTM D7042		12.00	9.16
Viscosity @ 0°C, (cSt)	ASTM D7042		76.0	58.97
Specific Gravity @ 60°F	ASTM D1298		0.910	0.884
API Gravity @ 60°F	ASTM D287			31.1
Viscosity @ 100°F, (SUS)	ASTM D2161		65.000	53
Viscosity @ 210°F, (SUS)	ASTM D2161			33
Dielectric Breakdown Voltage, 2 mm gap, (kV)	ASTM D1816	35		56
Impulse Breakdown Voltage, (kV)	ASTM D3300	145		>200
Gassing Tendency, (µL/min)	ASTM D2300		+30	Complies
Dissipation Factor (Power Factor) @ 25°C, (%)	ASTM D924		0.050	0.0003
Dissipation Factor (Power Factor) @ 100°C, (%)	ASTM D924		0.300	0.004

Chemical				
Oxidation Stability	ASTM D2440			
Sludge @ 72 hours (% by mass)	ASTM D2440		0.1	<0.1
Acid Number @ 72 hours, (mg KOH/g)	ASTM D2440		0.3	<0.1
Sludge @ 164 hours (% by mass)	ASTM D2440		0.2	<0.1
Acid Number @ 164 hours, (mg KOH/g)	ASTM D2440		0.4	<0.1
Rotating Pressure Vessel (minutes)	ASTM D2112	195		300
Inhibitor Content (%)	ASTM D2668	0.20	0.30	0.29
Copper Strip Corrosion, 3 hours @ 100°C	ASTM D130	Pass		Pass
Corrosive Sulfur Copper Strip, 48 Hours @ 150°C	ASTM D1275	Not Corrosive		Not Corrosive
Water Content, (mg/kg)	ASTM D1533		35	10
Acid Number, (mg KOH/g)	ASTM D974		0.03	<0.01
PCB Content	ASTM D4059	Not Detectable		Not Detectable

Health Safety and Environment				
Polycyclic Aromatic Compounds, (wt %)	IP 346		3	<3.0
Modified Ames Assay	ASTM E1687		Pass	Pass