

HyVolt SE

Synthetic Ester Dielectric Fluid Marketing Specification

HyVolt SE is a high-performance synthetic ester fluid developed for use as a dielectric and cooling medium in new and existing power and distribution electrical apparatuses such as transformers and other equipment. HyVolt SE is a readily biodegradable high fire point fluid exceeding the requirements defined in IEC 61099.

TEST DESCRIPTION	TEST METHOD	SPECIFICATIONS		TYPICAL VALUES
		MIN	MAX	
Physical Properties				
Viscosity, cSt at 40°C, mm ² /s	ISO 3104		35.0	29
Viscosity, cSt at -20°C, mm ² /s	ISO 3104		3000	1440
Density at 20°C, kg/dm ³	ISO 12185/ISO 3675		1	0.97
Flash Point, °C	ISO 2719	250		260
Fire Point, °C	ISO 2592	300		316
Color	ISO 2211		200 Hazen	125
Pour Point, °C	ISO 3016		-45	-56
Appearance	Visual	Clear & Bright		Clear & Bright
Biodegradability		Readily Biodegradable		Readily Biodegradable
Crystallization	IEC 61099 (2010 Annex A)	No Crystals		No Crystals
Electrical Properties				
Dielectric Breakdown, Voltage at 60 Hz, kV	IEC 60156	45		>75
Power Factor at 50 Hz, 90°C, %	IEC 60247		0.03	<0.008
DC Resistivity at 90°C, GΩm	IEC 60247	2		>20
Chemical Properties				
Water Content, ppm	IEC 60814		200	50
Neutralization Number, mg KOH/g	IEC 62021-1 or IEC 62021-2		0.03	<0.03
Oxidation Stability (164 hours)	IEC 61125 C			
Total Acidity (mg KOH/g)			0.3	0.02
Total Sludge (% mass)			0.01	<0.01