

VOLTRO™ | ELECTRICAL INSULATING OIL



Voltro I meets or exceeds ASTM Type I and Doble Tops transformer oil requirements. Voltro I is negative gassing and provides exceptional oxidation stability to help extend transformer life and minimize maintenance.

PRODUCT FEATURES

Voltro I is a trace inhibited insulating and cooling oil for power and distribution transformers, as well as other equipment that requires extra oxidation protection.

PARAFFINIC ADVANTAGES

Renkert Oil's Voltro I is a highly-refined mineral oil, derived from paraffinic crude. It is severely hydro treated and trace inhibited to provide a high flash point, high viscosity index and high oxidation stability characteristics. Paraffinic oils have excellent oxidation stability and thermal properties.

DISTRIBUTION

- Reliable US and global distribution
- Convenient delivery by ship, truck, rail, drums or flexi bags

Voltro I Electrical Insulating Oil:

- meets or surpasses ASTM D3487 Type I
- conforms to corrosive test ASTM D 3487 method B
- passes corrosive sulfur IEC 62535 CIGRE
- is a stable, low-moisture oil
- has a high flash point
- is PCB free
- is DBDS free
- is passivator free
- is metal deactivator free
- is silicone free

APPLICATIONS

- Power & distribution transformers
- Switchgear & circuit breakers
- Rectifiers

Contact us to request a sample or for additional details on Voltro I for your application. Renkert Oil's expert consultants are also happy to provide troubleshooting or problem solving assistance.

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VOLTRO I ELECTRICAL INSULATING OIL SPECIFICATION

This electrical insulating oil is produced from a severely hydrotreated oil to meet the specification requirements defined in ASTM D 3487.

RENKERT OIL VOLTRO™	ASTM TEST METHOD	ASTM TYPE I SPEC		VOLTRO™ I TYPICALS
		Minimum	Maximum	
Physical Properties				
Viscosity @ 100°C, cSt	ASTM D 445		3.0	2.5
Viscosity @ 40°C, cSt	ASTM D 445		12.0	9.3
Pour Point, °C	ASTM D 97		-40.0	-45
Flash Point, COC, °C	ASTM D 92	145		175
Specific Gravity @ 15°C/15°C	ASTM D 1298		0.91	0.83
Neutralization Number, mg KOH/gm	ASTM D 974		0.03	<.01
Interfacial Tension @ 25°C, dynes/cm	ASTM D 971	40		50
Karl Fischer Water, ppm	ASTM D 1533		35.0	12
Inhibitor Content, %	ASTM D 2668		0.08	0.05
Electrical Properties				
Dielectric Breakdown @ 60 Hz, disk electrodes kV	ASTM D 877	30		50
Dielectric Breakdown @ 60 Hz, VDE, kV (2.03-mm) gap	ASTM D 1816 (a)	35		75
Power Factor, % @ 25°C	ASTM D 924		0.05	0.005
Power Factor, % @ 100°C	ASTM D 924		0.30	0.1
Gassing Tendency, µL/min	ASTM D 2300		30	-10
Chemical Properties				
Oxidation Stability	ASTM D 2440			
72 hr: Sludge, % by mass			0.15	<.01
Total Acid Number, mg KOH/g			0.5	<.01
164 hr: Sludge, % by mass			0.3	<.01
Total Acid Number, mg KOH/g			0.6	<.01
Corrosive sulfur	ASTM D 1275B	Non-corrosive		PASS
Aniline Point, °C	ASTM D 611	63.0		88
PCB Content, ppm	ASTM D 4059	None detected		ND
Appearance		Clear / No particulates		Clear