

Product Data Sheet

Voltinol I

Description and Applications

Saheli Voltinol I is high performance inhibited electrical insulating oil specially designed for use in transformers, switchgears and other electrical equipment.

Saheli Voltinol I is formulated with high quality severely hydro-processed naphthenic base oils and fortified with an inhibitor to minimize oxidative change and extend its service life.

Saheli Voltinol I possesses excellent thermal and oxidation stability, good dielectric properties and heat transfer characteristics due to the low viscosity to provide reliable operation, with reduced downtime and extended service life.

Saheli Voltinol I exceeds the performance requirements of major transformer and switchgear specifications for inhibited oils.

Features and Benefits

- Excellent thermal stability and oxidation resistance prevents sludge formation, controls deposits and minimizes oil degradation leading to reliable operation.
- High dielectric strength ensures excellent insulation and quenching of electric arc between switchgear contacts when opening the switch.
- Low power-loss contributes to overall efficiency.
- Low viscosity and high interfacial tension ensures good wet ability of oil and removal of air gaps to insulate windings and dissipate heat.
- Effective long-term protection from rust and corrosion to critical system components.

Applications

- Insulating and cooling oil for electrical transformers, switchgears, circuit breakers, capacitors and automotive ignition coils.
- Used where inhibited insulating oils meeting IEC 60296: Inhibited type (I) are required.

Specifications

IEC 60296 Inhibited Type I

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Test Parameters	Test Method	Typical Results
Density @ 20°C gm/cm ³	ISO 12185	0.881
Acid Number, mg KOH/g	IEC 62021-1	<0.01
Viscosity @ 40°C (cSt)	ISO 3104	9.1
Viscosity @ -30°C (cSt)	ISO 3104	1045
Breakdown Voltage, kV, Before treatment	IEC 60156	59
Breakdown Voltage, kV, After treatment	IEC 60156	84
Water Content, mg/kg	IEC 60814	10
Pour Point °C	ISO 3106	-62
Flash Point PMCC, °C	ISO 2719	145
Interfacial Tension mN/m	ASTM D 971	50
Corrosive Sulphur	IEC 62535	Non Corrosive
Sulphur, wt%	ISO 14596	0.005
Antioxidant Additive, wt%	IEC 60666	0.38
PCB Content	IEC 61619	Not Detected
Oxidation Stability at 120°C 500 hours	IEC 61125,C	
• Total Stability, mg KOH/g		0.04
• Sludge, %		0.02
• DDF at 90°C		0.013