

HIVOLT 99 PLUS

Product Description

HIVOLT 99 PLUS is an inhibited type insulating oil for transformers, produced from high quality naphthenic oil and anti-oxidant additives, to prolong oil service life and exhibits high dielectric strength.

Benefits

- Provides thermal stability, low volatility, high flash point and good flow characteristic
- Minimizes insulating oil oxidation reaction and sludge formation
- Compatible with wire coating material
- Offers gas trapping property
- Exhibits excellent heat dissipation
- Maintains system cleanliness

Applications

- Used for transferring heat in transformers, switch gears and other electric equipment
- Suitable for use in oil filled capacitors, circuit breakers, switches and other equipment

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HIVOLT 99 PLUS

Typical Characteristics

Tests	Methods	Units	Results
Color	IEC 60296	-	Bright & Clear
Density at 20 °C	ISO 12185	g/ml	0.8770
Viscosity at 40 °C	ISO 3104	cSt	7.6
Viscosity at -30 °C	IEC 61868	cSt	730
Pour Point	ISO 3016	°C	-63
Water Content	IEC 60814	mg/kg	<20
Breakdown Voltage (as received)	IEC 60156	kV	40-60
Breakdown Voltage (after filtering)	IEC 60156	kV	>70
Dielectric Dissipation Factor (DDF) at 90 °C	IEC 60247	-	<0.001
Total Acid Number	IEC 62021-1	mg KOH/g	<0.01
Interfacial Tension	ASTM D971	mN/m	50
Total Sulphur Content (before oxidation test)	ISO 14596	%	<0.01
Corrosive Sulphur	DIN 51353		Non corrosive
Potentially Corrosive Sulphur	IEC 62535		Non corrosive
DBDS	IEC 62697-1	mg/kg	Not detectable
Antioxidant Additive	IEC 60666	%	0.08-0.40
Metal Passivator Additives	IEC 60666	mg/kg	Not detectable
2-Furfural and Related Compounds Content	IEC 61198	mg/kg	<0.05
Oxidation Stability	IEC 61125 C (I) 500h		
- Acid Number		mg KOH/g	0.04
- Sludge		%	<0.02
- Dielectric Dissipation Factor (DDF) at 90 °C			0.03
Flash Point (PMCC)	ISO 2719	°C	144
PCA Content	IP 346	%	<3
PCB Content	IEC 61619	mg/kg	Not detectable

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Performance Standards

- IEC 60296 : 2012 (Inhibited)
- IEC 61125 : 1992, Method C (Oxidation Stability)

Health and Safety

This product being shown with no significant health or safety hazard when used under the recommended applications and suitable handling.

Avoid the direct contact. Wash immediately after contact. Health and safety information is available on the Safety Data Sheet (SDS) which can be obtained from <http://pttlubricants.pttor.com>



The product can cause some skin irritation and has flash point higher than 93.4°C

Note: Data and information contained in this publication are based on standard test under laboratory conditions and/or performance test. To consider the use of PTT Lubricants' products in particular application, customer is responsible for determining whether product and information are appropriate for customer conditions or should consult with PTT Lubricants' technical service division. The procedure of using any lubricant may differ or change depended on different machines and their manuals. Therefore, we recommend to read, understand and review the latest SDS in order to ensure the use of product is accomplished safety.

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