MATSUMURA OIL CO., LTD.

C00000001B(E)

Electric Insulating Oil

Electrical Insulating Oil has been used for a long time and is one of the important insulating materials as it plays a role of insulation and cooling in electrical equipment such as transformers and capacitors. Our electrical insulating oil has products that meet the quality specified by domestic standards, and many are delivered to domestic electrical equipment manufacturers.

1. Features

(1)High degree of purification and exhibits excellent electrical characteristics such as breakdown voltage and volume resistivity.

(2) Excellent cooling effect and effectively cools the heat generated in the transformer.

(3) Low pour point and high flash point, and extremely little evaporation loss.

(4) Excellent oxidative stability and does not deteriorate in quality, so it can be used for a long time.

(5) No metal corrosion.

2. Types and uses

(1) BARREL TRANS M

High voltage and large capacity oil-filled transformers, has excellent oxidation stability, and has a high breakdown voltage.

(2) BARREL TRANS C

Specially refined products for oil-filled capacitors and oil-filled cables, with high volume resistivity and excellent dielectric loss tangent.

(3) BARREL TRANS AB

For high voltage and large capacity oil-filled transformers, consisting of mineral oil and alkylbenzene, with excellent oxidative stability and high breakdown voltage.

(4) BARREL TRANS PX

High volume resistivity and excellent dielectric loss tangent, with the main component being alkyldiphenylalkane for oil-filled capacitors.

(5) BARREL SILICONE FLUID M-E series

Silicone oil for oil-filled transformers, which has a high flash point, is flame-retardant, and has a high breakdown voltage.

3. Typical properties

Property		BARREL TRANS M	BARREL TRANS C	BARREL TRANS AB
Appearance		Clear		
Density (15°C) kg/l		0.87	0.90	0.88
Kinematic Viscosity mm^2/s	40°C	8.2	9.1	10
	100°C	2.2	2.3	2.6
Pour Point °C		-32.5	-55.0	-40.0
Flash Point (PM) °C		142	144	148
Specific Dispersion (25°C)		———	114	———
Acid Number mgKOH/g		0.01	0.01	0.01
Corrosive Sulfur (140°C,19h)		non-corrosive	non-corrosive	non-corrosive
Oxidation Stability (120°C,75h)	Sludge %	0.10	———	0.10
	Acid Number mgKOH/g	0.30	———	0.22
Water Content mg/kg		15	———	20
Dielectric Breakdown Voltage (2.5mm) kV		84	80	78
Dielectric Dissipation Factor (80°C) %		0.01	0.01	0.01
Volume Resistivity (80°C) TΩ·m		5.0	5.0	10
Color (ASTM)		L0.5	L0.5	L0.5

Property		BARREL TRANS PX	BARREL SILICONE FLUID M-20E	BARREL SILICONE FLUID M-50E
Appearance		Clear		
Density (15°C) kg/l		0.99	0.96	0.97
Kinematic Viscosity mm^2/s	25°C	———	20	50
	40°C	5.3	15	37
	100°C	1.6	6.3	15
Pour Point °C		-45.0	-60>	-55>
Flash Point (PM) °C		146	268	318
Combustion Quality mm/s		———	3.0	Extinguishing flame
Evaporation Rate (150°C,24h) %		———	1.0	0.20
Acid Number mgKOH/g		0.01	0.01	0.01
Corrosive Sulfur (140°C,19h)		non-corrosive	non-corrosive	non-corrosive
Water Content mg/kg		25	30	20
Dielectric Breakdown Voltage (2.5mm) kV		80	75	65
Dielectric Dissipation Factor (80°C) %		0.02	0.01	0.01
Relative Permittivity (80°C)		2.50	2.50	2.55
Volume Resistivity (80°C) TΩ·m		10	10	10
Color (ASTM)		L0.5	L0.5	L0.5

(2022.07)