

### TRANSFORMER OIL (Class I)

Petromin Transformer Oil (Class I) is an un-inhibited highly-refined naphthenic oil specifically manufactured for use in electric transformers and switchgears, to act as an insulating and heat transfer medium.

#### BENEFITS

- Good oxidation stability.
- High dielectric strength.
- Very low pour point.
- Free from acids and corrosive Sulphur.
- Compatible with transformer construction material.

#### SPECIFICATION & APPROVALS

Petromin Transformer Oil NGX Series meets or exceeds the requirements of:

- IEC 60296 (Edition 4 of 2012)
- IEC Class II/I
- BS 148 (1984)

#### APPLICATIONS

Petromin Transformer Oil (Class I) conform to IEC 60296 Edition 4 of 2012 as well as former B.S. 148/1984 and IEC Specification 296 (82) and is also used as an insulating and cooling medium where oil of high thermal and oxidation stability is required. It is also suitable where good gas absorbing properties are necessary like transformer oil immersed switchgear, circuit breakers etc. This Transformer Oil meets class I and class II of BS 148 and IEC 296 specification.



## PRODUCT DATA SHEET

### PRODUCT CHARACTERISTICS\*

PROPERTIES	Min	Max	VALUES	TEST METHOD
Density @ 20 °C		0.895	0.8806	ISO 12185
Viscosity @ 40°C mm <sup>2</sup> /s		12.0	10.02	ISO 3104
Viscosity @ -30°C mm <sup>2</sup> /s		1800	1222	ISO 3104
Viscosity @ 100°C mm <sup>2</sup> /s		3.0	2.42	ISO 3104
Pour Point °C		-40	-58	ISO 3016
Water Content, mg/kg		30	15	IEC 60814
BDV, kV, Before treatment	30		45	IEC 60156
BDV, kV, After treatment	70		75	IEC 60156
DDF at 90 °C		0.005	0.002	IEC 60247
Refining/ Stability				
Appearance	PASS		PASS	ERTM-2
Total Sulfur, ppm		0.01	0.007	IEC62021-1
Interfacial Tension, mN/m	40		49	ASTM D 971
Corrosive Sulfur	Non Corrosive		Non Corrosive	DIN 51353
Corrosive Sulfur	Non Corrosive		Non Corrosive	ASTM 1275, B
Furfural Content, mg/Kg		0.05	<0.01	IEC 61198
DBDS	Not detected (<5mg/kg)		Not detected	IEC 62697-1
Inhibitors of IEC 60666	Not detected (<0.01 %)		Not detected	IEC 60666
Metal Passivator Additives	Not detected (<0.05mg/kg)		Not detected	IEC 60666
Performance				
Oxidation Stability at 120 °C				IEC 61125, C
Total Acidity, mg KOH/g		1.2	0.59	
Sludge, %		0.8	0.17	
DDF at 90 °C		0.05	0.041	
Health, Safety and Environment				
Flash Point, PMCC, °C	135 * 145 **	* Per IEC 60296 ** Per ASTM D-3487	152	ISO 2719
PCA Content, %		3	<2.0	BS2000 part 346
PCB Content, ppm	Not detected (< 2)		Not detected	IEC 61619
Product Code			<b>5341</b>	

\*The information and figures given here are typical of current production and conform to specification, minor variations may occur.

