PETROTM OIL

LUBENZ SOLO TRANSFORMER OIL BS

Product Data Sheet

Product Description

LUBENZ SOLO TRANSFORMER OIL BS are severely refined hydro-cracked / hydro-treated virgin inhibited insulating oils with highest degree of purity and stability. It is manufactured from judiciously selected blend of latest technology feed stocks, which is highly suitable for all grades of Power & distribution Transformers, Circuit Breakers, Oil filled switches and X-ray equipment.

Features & Benefits

- Very low sulphur and no DBDS.
- Low Pour point.
- High dielectric strength.
- Non corrosive as tested by all present methods, DIN & ASTM tests & New IEC 62535 method.
- Low viscosity oils offering excellent and fast heat transfer.
- Higher Flash point, resulting on Low evaporation losses and better safety
- Remarkably low sludge and acidity formation, in both ageing and oxidation tests, results in longer life of oil and equipment
- Compatible with transformer construction material.

Application

- LUBENZ SOLO TRANSFORMER OIL BS are highly suitable for all grades of
- Power Transformers, Distribution Transformers
- Circuit Breakers
- Oil filled switches
- X-ray equipment.

Specifications

LUBENZ SOLO TRANSFORMER OIL BS conforms to and exceed the requirements of ASTM D 3487 Type II & IEC 60296:2012 (Table 2: I – High Grade requirements)

LUBENZ SOLO TRANSFORMER OIL BS are High Grade Inhibited Transformer oil has superior oxidation stability – meeting the high grade requirements as specified in IEC 60296:2012, high dielectric strength and are used in equipment requiring operations at high elevated temperatures & greater oxidation resistance.

Typical Characteristics

TEST DESCRIPTION	TEST METHOD	SPECIFICATION LIMITS	TYPICAL VALUES
Function			
Kinematic Viscosity at 40° C mm^2/s, Max	ISO 3104	12.0	9.7
at -30° C mm^2/s, Max		1800	600
Pour Point °C, Max	ISO 3016	≤ -40	-42
Water Content, in Bulk, mg/kg, Max	IEC 60814	20	12
in Drum & IBC mg/kg, Max		30	20
Break Down Voltage, kV, Min			
As Delivered	IEC 60156	30	50 - 65
After treatment		70	70 - 80
Density at 20 °C, g/ml, Max	ISO 12185 / ISO 3675	0.895	0.821
DDF at 90 °C, Max	IEC 60247 / IEC 61620	0.005	0.0005

The above figures are typical of blends with normal production tolerance and do not constitute a specification.

Refining/stability			
Appearance	Visual	Transparent Clear & odourless liquid free from suspended impurities	Transparent Clear & odourless liquid free from suspended impurities
Neutralisation Value / Acidity, mg KOH/g, Max	IEC 62021-1 / IEC 62021-2	0.01	< 0.001
Interfacial tension, mN/m, Min	EN 14210 / ASTM D 971	40	48
Total Sulphur Content, % , Max	ISO 14596	0.05	< 0.01
Corrosive Sulphur, silver strip, 100°C, 18 hrs	DIN 51353	Non Corrosive	Non Corrosive
Cu Strip & Paper 150 °C, 72 hrs	IEC 62535	Non corrosive	Non corrosive
Dibenzyldisulphide (DBDS)	IEC 61297-1	Not Detectable	Not Detected
Antioxidant Additives, % Max	IEC 60666	0.3 – 0.40	0.3
2-Furfural content, mg/kg, Max	IEC 61198	0.05	Nil
Performance			
Oxidation Stability,500 hrs			
- Total acidity, mg KOH/g, Max	IEC 61125 : 1992 Method C	0.30	0.02
- Sludge, %, Max		0.05	< 0.01
- DDF at 90^{0}C, Max	IEC 60247	0.05	0.005
Health, safety and environment (HSE)			
Flash Point, PMCC, ^{0}C , Min	ISO 2719	135	150
Polycyclic Aromatics (PCA) content, % Max	BS 2000 (P: 346)	3.00	< 1 %
Polychlorinated biphenyls (PCB) content	IEC 61619	Not Detectable	Not Detected
Bio Degradability			
OECD 301 B, CO_2 Evolution Test	OECD 301B	-	"Readily Biodegradable" (> 60 %)
Conforms to Standards			
IEC 60296:2012 Table 2 : I – High Grade requirements		✓	✓
ASTM D3487 Type II		✓	✓

The above figures are typical of blends with normal production tolerance and do not constitute a specification

Packaging Options:

LUBENZ SOLO TRANSFORMER OIL BS are offered in 200-210 litres of steel drums and also in bulk in Flexi bags or ISO tanks.

Storage Precautions:

Extreme care is taken while packing these products, including filling of drums in inert atmosphere, as Electrical Insulating oils / Transformer oils are very sensitive to very minute concentrations of contaminants, such as moisture, particulate matter, fibers, etc. Hence, care should be taken to store **LUBENZ SOLO TRANSFORMER OIL BS** in a clean and dry condition. It is strongly recommended that all storage tanks / drums be maintained such that oil is not in contact with atmospheric air. Also these oils should always be stored indoors in climate controlled environments.