# TRANSFORMER OIL (I)

## Inhibited High Performance Electrical Insulating Oil

Technical Data Sheet

### Specification and Approvals

Meets the following specifications: -

ASTM D1275 method B
IEC 60296 (11.2003)

***Note: MOGAS Transformer oil does NOT contain Polychlorinated Biphenyls (PCBs)***

### Description

MOGAS Transformer Oil a is highly refined non-inhibited high performance mineral paraffinic oil with good oxidation stability and high dielectric strength, designed to meet the BS, ASTM, and IEC specifications for electrical insulating oil.

### Features and Benefits

- High insulating capacity.
- Prolonged equipment life through good heat transfer properties
- Effective cooling and heat dissipation due to low viscosity.
- Minimum risk of fire due to very high flash point.
- High demulsibility to ensure good separation of water in case of accidental pollution.
- No impurities e.g. water, dissolved gases, suspended solids, etc.
- Minimum consumption of product due to low volatility at normal operating temperatures.
- Reduction in energy losses due to excellent electrical insulation and dielectric properties.
- Increased life of switch contacts by rapidly quenching arcs
- Long life time due to good natural oxidation stability

### Applications

For insulation and cooling transformer coils, quench electric arcs that form between contacts of switchgears, circuit breakers and rheostats using mineral insulating oil.

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MOGAS

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## Typical Properties

| Test Parameters | Test Method | Specification | |
|---|---|---|---|
| | | IEC60296 | ASTMD 3487 |
| Appearance | IEC 601296 | Clear, free from sediment & Suspension matter | |
| Color | ASTM D 1500-12 | | L0.5 |
| Viscosity at 100°C (212° F), max, cSt | ASTM D 445 | | 2.360 |
| Viscosity at 40°C (104° F), max, cSt | ASTM D 445/ISO 3104 | 12 | 12 |
| Viscosity at 0° C (32° F), max, cSt | ASTM D 445 | | 76 |
| Viscosity at -30° C (-22° F), max, cSt | ISO 3104 | 1800 | |
| Pour Point, max, °C (°F) | ASTM D97/ ISO 3016 | -40 (-40) | -40 (-40) |
| Water Content, max, ppm | ASTMD 6304-07/ ISO 60814 | 30 | 30 |
| Breakdown Voltage, kV ,Untreated | ASTM D 877/ IEC 60156 | 40 min | 40 min |
| Breakdown Voltage, kV, Treated | ASTM D 877/ IEC 60156 | 70 min | 70 min |
| Density @ 29.5°C, max, g/cm3 | ASTM D 4052-11/ ISO 3675 | | 0.8702 |
| Dielectric Dissipation Factor at 90 °C | IEC 60247-2004-02 | 0.001 | |
| Power Factor, % @ 25°C (77°F) | ASTM D 924 | | 0.05 |
| Power Factor, % 100°C (212° F) | ASTM D 924 | | 0.30 |
| Acidity, max, mg KOH/g | ASTM D 974/ IEC 62021-1 | 0.01 | 0.03 |
| Interfacial Tension, min, mN/m | ASTM D 971/ ISO 6295 | 40 | 40 |
| Total Sulfur | BS 2000/ISO 14596 | | |
| Corrosive Sulfur | ASTM D1275 B/ DIN 51353 | Non-Corrosive | Non-Corrosive |
| Antioxidant, max, wt. % | ASTM D 2668/ IEC 60666 | ND | ND |
| 2 - Furfural, max, mg/kg | IEC 61198 | 0.05 | |
| Oxidation Stability, 72 Hour: | ASTM D 2440 | | |
| Acid, max, mg KOH/g | | | 0.15 |
| Sludge, wt. % | | | 0.50 |
| Oxidation Stability, 164 Hour: | ASTM D 2440/ IEC 61125 | | |
| Acid, max, mg KOH/g | | 1.2 | 0.30 |
| Sludge, wt. % | | 0.30 | 0.30 |
| Flash Point | ASTM D 93-13/ ISO 2719 | 135,PMCC | 145 COC |
| PCA Content, max, wt. | % BS 2000 Part 346 | 3.0 | |
| PCB Content, ppm | ASTM D 4059/ IEC 61619 | ND | ND |

The typical characteristics mentioned represent mean values

## Health and Safety

This product used as per our recommendation for the intended application is not expected to produce any particular risk. A safety data sheet of it is available upon request from our sales contact office or on our website. In case of used oil disposal, please respect the Regulations to protect the environment.