Mobilect 39

Electrical insulating oils

Product Description

Mobilect 39 is a high quality mineral uninhibited insulating oils with very good dielectric properties and oxidation stability intended for transformers, switchgears and other electrical equipment.

Mobilect 39 is uninhibited and meets the specifications IEC 60296-03 (U) and ASTM D1275B / CIGRE corrosion tests requirements.

Features and Benefits

- Mobilect 39 has a high resistance to thermal and chemical degradation in the presence of iron and copper, which reduces tendencies to produce sludges and oil-soluble oxidation products. When lower quality oils are used these may form deposits in the transformer and impede heat transfer by interfering with convection currents. In addition deposits may accelerate insulation defects and are often very difficult to remove without complete dismantling.
- Mobilect 39 is specifically treated during manufacture to remove moisture. Water will reduce the electrical insulating properties of the oil and promote oxidation. It is important to remember that a dry oil is hygroscopic and absorbs moisture from the air. It must therefore always be stored in dry conditions and well-closed containers. It is strongly recommend to dry the product before use or use it within short notice after purchasing to avoid long term storage.
- The dielectric strength of Mobilect 39 is a measure of the resistance of the oil to electric stress and is expressed in kV across a specified gap under test conditions. This is not a measure of the quality of the oil but of the absence of contaminants - especially moisture, fibres and polar chemicals.
- Mobilect 39 is free from wax even at low temperatures and thus circulates freely in outdoor applications. Its viscosity ensures readily heat transfer by mobile convection currents. Mobility is also essential to quick quenching of arcs in switchgear units.
- The low pour point of Mobilect 39 ensures a free flow in most conditions between the transformer and the conservator and maintains the reliability of tap changers at the lowest temperatures.

Applications

- Mobilect 39 is recommended for use in oil filled transformers and switchgears in which the oil is required as an insulation medium or as a heat transfer medium.
- Mobilect 39 is to be used in applications specifying IEC 60296 -03 (U) and reinforced copper corrosion protection (pass ASTM D1275B corrosion test).
- Mobilect 39 is not suitable for use in oil filled cables, for special impregnation processes or for use in capacitors.

Specifications and Approvals

Mobilect 39 meets or exceeds the following industry specifications	
IEC 60296-03 (U)	Meets

Mobilect 39 meets or exceeds the following industry specifications	
ASTM D1275B corrosion test	Pass
CIGRE corrosion test	Quality level

Typical Properties

Mobilect 39	
Density at 20°C, kg/dm³, ISO 12185	0.883
Viscosity, mm2.s-1 @ 40°C, ISO 3104	9.5
Flash Point (PMCC), °C, ISO 2719	148
Pour Point, °C, ISO 3016	- 54
Corrosive Sulphur, ASTM D1275 procedure B	Non Corrosive
Oxidation Stability @ 120°C /164 h, IEC 61 125C	
- Total Acidity, mg KOH/g	0.31
- sludge, wt%	0.11
Dielectric Dissipation Factor @ 90°C, IEC 60247	‹ 0.001
Interfacial Tension, mN/m, ISO 6295	› 40
Breakdown voltage,	
- before treatment, kV, IEC 60156	› 30
- after treatment, kV, IEC 60156	› 70

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contact office, or via the Internet or will be provided by seller to customers if and as legally required. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.