Mobilect™ 39

Mobil Industrial , Spain

Electrical insulating oils

Product Description

Mobilect™ 39 is a high quality mineral uninhibited insulating oil 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 (04) 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 sludge 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 recommended 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 andwitchgears 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 (04) General Specifications 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

This product meets or exceeds the requirements of:
IEC 60296 (04) General Specifications

Properties and Specifications

Property	
Breakdown Voltage, kV, IEC 60156	> 30

Property	
Breakdown Voltage, after Treatment, kV, IEC 60156	> 70
Corrosive Sulfur, Procedure B, ASTM D1275	Non Corrosive
Density @ 20C, kg/L, ISO 12185	0.883
Dielectric Dissipation Factor @ 90 C, IEC 60247	<0.001
Flash Point, Pensky-Martens Closed Cup, °C, ISO 2719	148
Interfacial Tension, mN/m, ISO 6295	> 40
Kinematic Viscosity @ 40 C, mm2/s, ISO 3104	9.5
Oxidation Stability, Sludge, 164 h, 120 C, mass%, IEC 61125-METC	0.11
Oxidation Stability, Total Acidity, 164 h, 120 C, mgKOH/g, IEC 61125-METC	0.31
Pour Point, °C, ISO 3016	-54

Health and safety

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ http://www.msds.exxonmobil.com/psims/psims.aspx

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