



PETRONAS TRANOL 360 PLUS

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Premium Quality Inhibited Electrical Insulation Oil

PETRONAS Tranol 360 Plus is a superior quality inhibited electrical insulating oil formulated with highly refined imported napthenic basestocks and fortified with special oxidation inhibitors to meet and exceed the requirements of IEC 60296:2012 and BS 148/1998 Class 1A.

PETRONAS Tranol 360 Plus is developed for high temperature and long service applications of oil-filled transformer, switchgears, capacitors, tap changers and circuit breakers with high dielectric strength properties, low dissipation factors, good resistant to oxidation as well as low viscosity for easy circulation and efficient heat transfer. PETRONAS Tranol 360 Plus does not contain any polychlorinated biphenyls (PCBs).

Applications

PETRONAS Tranol 360 Plus is excellent for these applications:

- To cool and dissipate the heat generated for oil-filled transformers during high load
- To insulate the windings of transformers by replacing the air or gases between conductors
- To quench the spark or arc that is formed when a breaker or switchgear opens under load.
- To insulate other oil-immersed electrical equipment such as switch breakers, switchgears, capacitors, tap changers, fuses, and ignition coils.

Features and Benefits

- Low viscosity for easy circulation and efficient heat transfer
- High dielectric strength and low dissipation factors for excellent insulating characteristics
- Special oxidation inhibitors for high temperature operations and long service life
- Compatible with materials used in transformers and switchgears
- Free from corrosive sulfur, acid, and alkali

Specifications, Approval and Recommendation

PETRONAS TRANOL 360 PLUS meets and exceeds the following performance:

- IEC 60296:2012
- BS 148/98 Class 1A

Storage and Handling Guide

- Oil must be kept clean and dry
- Store indoors or under cover to minimize the effect of air 'breathing' with temperature change
- Use product immediately once the drum is opened to minimize the moisture and dust contamination
- Inspect the drum conditions and if contamination is suspected, test the dielectric strength before use



Typical Properties

Characteristics	Unit	Typical Data
Appearance	-	Bright and Clear
Density at 20°C	Kg/l	0.892
Kinematic Viscosity @ 40°C @ -30°C	cSt cSt	9.05 1061
Pour Point	°C	-54
Sulphur Content	mg/kg	201
Water Content	ppm	18
Interfacial Tension at 20 °C	mN/m	45
Dielectric Breakdown Voltage	kV	85
Dissipation Factor at 90 °C	-	0.001
Furfural Content	mg/kg	Not Detected
PCB Content	mg/kg	Not Detected
Polycyclic Aromatics (PCA)	% mass	0.6

* All technical data is provided for reference only.

Health, Safety and Environment

For further assistance on product MSDS, recommendation or technical queries, please liaise with the regional technical services engineer or contact HQ technical engineers.