

# DIELECTRIC ANALYSIS

Transformer Oil Analysis is an essential part of a Cost-Efficient Maintenance Program. It is well known that regular oil analysis is useful in monitoring the condition of engines, turbines and other oil lubricated equipment. The same can be said for transformer oils used to insulate many transformers and other electrical distribution equipment. The analysis of insulating oils provides information about the oil, but also enables the detection of other possible problems, including contact arcing, aging insulating paper and other latent faults and is an indispensable part of a cost-efficient electrical maintenance program.

## Dielectric Strength:

The dielectric strength of transformer oil is defined as the maximum voltage that can be applied across the fluid without electrical breakdown. Because transformer oils are designed to provide electrical insulation under high electrical fields, any significant reduction in the dielectric strength may indicate that the oil is no longer capable of performing this vital function. Some of the things that can result in a reduction in dielectric strength include polar contaminants, such as water, oil degradation by-products and cellulose paper breakdown.

## Standard Test Package

Test	Method
Dielectric Strength	IEC 156
Total Acid Number	ASTM D 974
Water Content	ASTM D 6304
Flash Point	ASTM D 93

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Blue Oceans Software



Techenomics specialises in providing oil analysis services, and specialty lubricants to the mining industry.



By implementing a regular magnetic plug inspection program you will have a very low cost, effective and immediate early warning condition monitoring tool.



Techenomics filtration services can assist companies with the design and installation of a

