

## Effects of Water Content on Dielectric Properties of Mineral Transformer Oil

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**Abstract :** Mineral oil is commonly used for high voltage transformer insulation. The insulation quality of mineral oil is affecting the operation process of high voltage transformer. There are many contaminations which could decrease the insulation quality of mineral oil. One of them is water. This research talks about the effect of water content on dielectric properties, physic properties, and partial discharge pattern on mineral oil. Samples were varied with 10 varieties of water content value. And then all samples were tested to measure the dielectric properties, physic properties, and partial discharge pattern. The result of this research showed that an increment of water content value would decrease the insulation quality of mineral oil.

**Keywords :** dielectric properties, high voltage transformer, mineral oil, water content

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