

Ultrasonic Study of Power Transformer Oil at Different Temperatures

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Abstract: *Using an ultrasonic interferometer, unused pure transformer oil was compared to used oil that had been utilized for one and two years. The fluid density affects ultrasonic readings. We can investigate the ultrasonic velocity and, consequently, the various thermo-acoustic characteristics, such as adiabatic compressibility, acoustic impedance, relaxation time, Rao's constant, Wada's constant, etc., by measuring the fluid density at various temperatures. This paper has examined in depth how the parameters change with temperature. For all the three types of transformer oil.*

Keywords: Transformer oil, density, thermo-acoustic parameters, and ultrasonic velocity

