

Assessment of Solid Insulating Material Using Partial Discharge Characteristics

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Abstract : In this paper, partial discharge analysis is performed in cavities artificially created in insulation. The setup is according with Cigre-II Method. Circular Samples created from Perspex Sheet with different configuration with changing number of cavities. Assessment of insulation health can be performed by Partial Discharge measurement as this has been found to be important means of condition monitoring. The experiments are done using MPD 540, which is a modern partial discharge measurement system. By analyzing the PD activity obtained for various voids/cavities, it is observed that the PD voltages show variation for cavity's diameter, depth even for its ratios. This can be employed for scrutiny of insulation system.

Keywords : partial discharges, condition monitoring, insulation defects, degradation and corrosion, PMMA

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