Study the Effect of Chopped Carbon Fiber on the A. C Electrical Properties of Unsaturated Polyester Composites

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Abstract:

This work study the properties of connectivity alternate of unreinforced Unsaturated polyester and Unsaturated polyester reinforced with chopped carbon fiber. Were measured conductivity electrical [σ (w) ac] of the Unsaturated polyester and their composites reinforced with chopped carbon fiber with weight 2.5%, 5% and 7.5% and the frequency range between (10 2-10 6 HZ) at room temperature and found that the increase with increasing weight percentage of reinforcement. Found that the real insulation constant (ε1) and imaginary (ε2) increases with increasing the weight percentage of reinforcement and the reason is due to interface polarization and decreases with increasing frequency.