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Dielectric Properties of Polycarbonate Coated Natural Fabric Grewia tilifolia

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ABSTRACT

Natural fibers are emerging as low cost, lightweight and apparently environmentally superior alternatives to glass fibers in composites. With the increasing importance of environmental interactions, several innovations of the environmental performance are introduced in automotive industry. One aspect of innovation is an environmental material selection including renewable raw materials. The uses of cellulosic fibers have ranged from the construction industry to the automotive industry. The main attraction of bio-fiber reinforced composites lie in their low density and high strength. Polymer composites of a polycarbonate coated with natural fabric Grewia tilifolia were studied by means of dielectric properties in the frequency range 100 Hz to 1 MHz and temperature interval from 40°C to 160°C. It was found that the dielectric properties are lower for the treated (for both treated and treated with coupling agent) then that of the untreated (for both untreated and untreated with coupling agent) one. The present natural fabric composite has systematic and persistent research there will be good scope and better future for polymer reinforced composite for suitable electrical applications.