

Mechanical and electrical behavior of polymeric blends with GTR particles and applications



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Abstract

The massive manufacture of tires and their difficulty for subsequent recycling, represents today, a serious environmental problem. There are several methods to try to recycle used tires, one of them is mechanical separation, in which the vulcanized rubber is separated from steel and fibers, which results in a rubber that can be milled into small particles (Ground Tire Rubber, or GTR). This rubber can be used in various applications, such as the one presented by this research, in which, once mixed with customary polymers, it should be used for the manufacture of insulation for industrial work shoes, and others industrial applications that could be interesting, for the blended polymeric matrix with blends of GTR particles. Therefore, the objective of our study is focused in evaluate and study the results of mixing these GTR particles with several commonly used polymer matrices (polymer + GTR), verifying that both their mechanical, dielectric properties comply with the standards established for the manufacture of the insulation for shoes for industrial use, or other industrial applications. The analysis was carried out using seven polymer matrices mixed with different concentrations of GTR particles

Biography

Marc Marín-Genescà has completed his PhD at the age of 34 years from Polytechnical University of Catalonia (UPC), Spain - Barcelona. He, actually, is professor of Universitat Rovira i Virgili, Tarragona (Spain). He has over 25 publications that have been cited over 100 times, and his publication H-index is 7 and has been serving as an editorial board member of reputed Journals.

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