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Preparation and characteristics of PPS composites using glass fiber and reduced Graphene Oxide

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These days, a research that related to automobile and advanced electro materials has been concentrated on weight reduction of materials. In particular, a competition in the development of lightweight materials is intensifying due to various issues such as responding to environmental regulations and electric cars. In addition, various materials such as light metal materials are being replaced by carbon-based materials and high-performance plastic materials. In this study, Polyphenylene Sulfide/ Glass fiber/ reduced graphene oxide Composites were prepared by Twin screw extruder and injection molding processes. And then, we have investigated surface properties by Scanning electron microscopy (SEM). Thermal stabilities and Thermal conductivities were analyzed by Thermo gravimetric analysis and C-Therm TCi. Mechanical properties were examined by Universal Testing Machine (UTM). These results indicated that PPS/GF/RGO composites were enhanced thermal properties and mechanical.

Biography

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