

Enhance the Thermal Properties of Poly-propylene

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Abstract

This project is about enhancing the thermal properties (melting point, crystallization, thermal stability and thermal conductivity) of Polypropylene polymer (PP) by mixing with metallic powder (copper). Polypropylene (PP) was mixed with different percentage of copper powder separately by using the polymer extruder facilities in RCYCI research center. The metallic powder percentages were 3%, 6%, 10% of the total mass of polymer and compared with the pure PP. and the test was conducted at different voltages. A linear heat conduction machine was used to test the samples with different voltage 9-volt, 11-volt, 13-volt, 15-volts. Also, Differential scanning calorimetry (DSC), and thermal gravimetric analysis (TGA) were used.

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