

## The effect of the processing conditions on the Polypropylene/Multiwall Carbon Nanotube nanocomposites in Twin Screw Extruder

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Polypropylene/multiwalled carbon nanotube (PP/MWNT) nanocomposites were prepared with twin screw extruder. Masterbatch of PP-MWNT was introduced to prepare nanocomposites with extruder. To enhance the dispersion of MWNT in PP matrix, long L/D ratio twin screw extruder was used, and the effect of process condition, such as screw speed, residence time and barrel temperature, on PP/MWNT nanocomposites was investigated. The rheological and mechanical properties of nanocomposites as increasing contents of MWNT were also investigated with the processing conditions being fixed at optimum value. Thermal properties were also measured using TGA.