

Low-density PE and FP as matrixes and MWCNTs and grinded EG as fillers were chosen for preparation of NCM samples for testing. A special vacuum mold with a spinner was used to make the samples by extruding the NCM molten mixture. Parameters of nanotubes were as follows: average diameter of 10–20 nm, specific surface area (determined by argon desorption method) of 200–400 m²/g, and poured bulk density varying from 20 to 40 g/dm³. Polyethylene and carbon nanotubes-based powder mixtures were mechanically milled in a drum mixer. Low-density PE is a moisture- and corrosion-resistant and price-accessible raw material.