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.