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Flexing test of HDPE/EPR filled CNT radiated nanocomposites for sport shoe soles

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Abstract

This study was conducted to examine the effect of electron beam (EB) irradiation on the flexing of high density polyethylene (HDPE)/ethylene propylene rubber (EPR) blends and HDPE/EPR filled carbon nanotube (CNT) nanocomposites. The blends are compression molded into the soles of shoes before exposed to EB irradiation. Radiated and non-radiated matrixes as well as nanocomposites were subjected to single force and flexed at specified angles of 90 degrees according to ISO 17707 for flexing test. The flexes were more for samples that were exposed to EB irradiation. Moreover, samples filled with CNT showed a lower flex number.

Keywords

Author Keywords: [Flexing test](#); [carbonnanotubes](#); [electron beam Irradiation](#); [nanocomposites](#); [sport shoes](#)

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