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عنوان مقاله:

Dielectric Strength and Mechanical Properties of High-Density Polyethylene/Ethylene Vinyl Acetate/Organoclay Nanocomposite

محل انتشار:

اولین همایش بین المللی و ششمین همایش مشترک انجمن مهندسی متالورژی ایران (سال: 1391)

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خلاصه مقاله:

A ternary dielectric is made of High Density Ployethylene (HDPE) and organoclay nanocomposites via mixing monomers of Ethylene Vinyl Acetate (EVA). This blending process is followed by application of the melt mixing method (using laboratory scale Brabender counter-rotating twin screw extruder). Its dielectric strength (as an important electrical property of any dielectric) was measured per ASTM D149 standard. It is shown that the electrical and mechanical properties of HDPE/EVA binary blend were enhanced significantly when organoclay was treated with EVA compound. This insulation material employed to insulate the adjacent core steel sheets of high voltage transformer

کلمات کلیدی:

High Density Polyethylene, Ethylene Vinyl Acetate, Organoclay Nanocomposite, Dielectric Strength

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