

عنوان مقاله:

An Experimental Investigation of Surface Quality and Defects of Profiles in Wood-Plastic Composite Extrusion Process

محل انتشار:

کنفرانس بین المللی فرآورش پلیمرها (سال: 1390)

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خلاصه مقاله:

A problem that usually occurs in production of extruded parts of polymeric and in special wood-plastic composite (WPC) is flow instabilities at the extrusion die exit. In this paper influence of the important parameters of material and process on the surface quality (roughness) of extruded parts are investigated. The variable parameters are wood content, polymer melt flow index (MFI), screw speed, melt temperature, die diameter and finally length-to-diameter ratio of the die land. The Instabilities of die exit flow cause to defects on surface of profiles. The experiments specified that increasing die land length-to-diameter ratio (L/D), die temperature and wood content and decreasing screw speed and polymer MFI lead to improve the surface quality.

کلمات کلیدی:

Wood-Plastic Composite, Extrusion, Instability, Surface Quality, Defect

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