عنوان مقاله:

Experimental Investigation on Injection Molding of Wood- Plastics Composites

محل انتشار:

اولین کنفرانس بین المللی و هفتمین کنفرانس ملی مهندسی ساخت و تولید (سال: 1384)

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نویسندگان:

A.H Behravesh - *Assistant Professor Manufacturing Engineering Group, MechanicalEngineering Department,Tarbiat Modarres University, Tehran, Iran*

.A Zohdi Aghdam - *M.Sc. Graduated in Mechanical Eng*

خلاصه مقاله:

An experimnetal work have been conducted to investigate injection processing of wood/fiber-plastics composites (WPC). Wood-plastics composites are in the stage of extensive growing trend worldwide, as a favorite substitute for wood materials and also plastics. They introduce benefits such as higher stiffess and strength (in comparison to plastics), resistance to envirinmental attacks (humidity, water, insects) and most importantly processability (in comparison to wood), and also usage of wood residues. The major method for WPC processing is extrusion which is widely used for sheet and profile production. However, injection processing of WPC is in infant stage due to yet limited WPC recognition and also difficulty of the process. In this research work, injection processing of wood/flour-PP composite and the effects of processing parameters on mechanical properties are investiagted. The results show that increasing injection pressure and holding time have considerable effects on final moduls of elasticity, noticeable decreasing effect on elongation, and insignificant effects on strength

کلمات کلیدی:

Wood-Plastics Composites, Injection Molding, WPC Mechanical Properties