

## Stress Analysis of Injection - moulded Cylindrical Parts Reinforced with Short Fibres

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**An investigation was carried out through a study of the influence of material anisotropy and geometrical parameters of the cylindrical plastic parts reinforced by short fibres, on the state of stress. It has been shown that the result of such injection-moulded processes is an anisotropic product, whose mechanical behaviour differs considerably for that of classical types of isotropic solids. Unlike unreinforced plastics, fibre composites exhibit different stress phenomena and mechanical properties notably in cases where composite parts are highly curved. These unusual effects of their mechanical properties thus need to be considered carefully in the course of designing of reinforced plastic parts.**

**Keywords:** injection moulding, cylindrical bosses, short fibres, stress modelling

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