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**STRUCTURE AND MECHANICAL PROPERTIES OF POLYPROPYLENE INJECTION MOLDED PARTS  
UNDER CYCLIC LOADING**

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The results of investigations of strain-stress characteristics obtained during cyclic tension of injection molded parts from polypropylene were presented. The relationships between tensile stress and elongation of the samples were recorded. Hysteresis loops were obtained at the constant strain amplitude. In examinations it was found that cyclic loading causes some changes in structure and mechanical properties of polypropylene samples. The tensile strength of samples after 4000 cycles of loading increased of about 20% which indicates material reinforcement. In DSC studies some changes in polymer crystallinity were observed. Decrease in the degree of crystallinity of about 4,4% was observed in the subsurface layer, between the core and the skin, for samples subjected to 4000 cycles of loading. In microscopic studies the increase in the width of subsurface layer in loaded samples was observed.