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WELD LINES STRENGTH IN INJECTION MOULDED PARTS FROM POLYAMIDE COMPOSITE

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The results of weld lines strength investigation were presented in this paper. Polyamide as well as glass fiber reinforced polyamide parts (30% in weight) were injection moulded in two options: with and without weld lines. The tensile tests showed 40% decrease in tensile strength of samples due to weld lines occurrence for parts with glass fiber reinforcement while no significant changes were noticed for non-reinforced material. The results of tensile tests made one week after injection moulding and after twenty months were compared. It was stated that after long time period the strength of this composite material decreased. Structure of weld lines was also investigated. The difference in structure and strength of weld lines dependent on melt temperature during injection moulding process was observed.