

# INFLUENCE OF UNPACKING TEMPERATURE ON TENSILE STRENGTH OF PA12 PARTS MANUFACTURED BY SLS

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Selective laser sintering (SLS) has many advantages over conventional manufacturing methods. However, its disadvantage is the speed of the process. If the speed of the process could be shortened while maintaining the quality of the part, SLS would be more competitive in an industrial environment. The most time-consuming part of the whole manufacturing process is the cooling phase. Thus, we investigated how the factors related to the cooling process influence the tensile properties of the printed part. The paper focuses on the correlation between tensile strength and unpacking temperature. The methodology includes printing tensile specimens, unpacking the specimens at different temperatures and finally running the tensile tests. The aim of the study is to gain insight into the cooling process and its influences, and to find out possibilities for speeding up the manufacturing process without sacrificing the quality of the parts.



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