POLYESTER-BASED OLIGOMERS - NEW BUILDING BLOCKS FOR INDUSTRY-READY ADDITIVE MANUFACTURING

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A major roadblock for implementing photopolymer-based 3D printing technologies in industrial part production is the lack of durability and long-term stability of printed objects. New material concepts, e.g.; Hot Lithography from Cubicure, offer solutions, but formulation components are not readily available on the market.

In this work, we describe the development of new functionalized polyester-based oligomers. Those oligomers have been varied with respect to monomer composition, molecular weight and functionalization. The respective oligomers have been screened for printability and more importantly for the material performance of the printed parts.