3D Printing: Overview of PLA Progress

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Abstract:

This review provides a brief discussion about how additive manufacturing works, together with its strength and limitations. Fundamental aspects of FDM including the working mechanism, processing parameters have been reported. This study emphasizes on the progress of Polylactic acid (PLA) utilizing FDM and looks at the opportunity it offers as an advance material when integrated with filler compounds forming potential composites. A summary on the recent developments of PLA composites have been included, also elaborating the preparation technique and the relevance of the composite developed. Mechanical properties of pure PLA have been presented highlighting the processing parameter used, types of mechanical tests done and the resulting values from those conducted experiments.

Keywords: 3D Printing, PLA, Tensile Testing, Elastic Modulus, Mechanical Properties