

Surface Engineering Strategy

Fused Deposition Modeling pp 51-68 | Cite as

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Chapter

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Abstract

In this chapter, surface engineering techniques for enhancing the surface properties of 3D printed parts are described. The strategies are classified broadly into traditional and modern (advanced) technologies. Under traditional methods, sanding, polishing, painting, gap filling and dipping are discussed as some of the processes for enhancing the surface quality of FDM parts. Under modern technologies, chemical vapour deposition, physical vapour deposition and vapour smoothing are identified as some of the most important methods for surface engineering of FDM parts. For each method, operating principles, advantages and limitations are described while quality enhancement aspects for FDM parts are also highlighted.

Keywords

Chemical vapour deposition (CVD) Vapour smoothing Painting
Physical vapour deposition (PVD) Polishing Sanding Surface engineering
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