Theoretical study of selective laser sintering of polyamide 12

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The laser sintering process allows to create a wide range of parts printed in 3 dimensions (3D). 3D printing is done layer by layer on powders (plastics, juices, polymers), using a laser. SLS printing requires the use of a special gas, nitrogen, SLS 3D printers are made from two enhancement chambers

The laser draws the case of each region of the 3D drawing on a bed of powder. Each time a diaper is made, the bed breaks and another diaper is made over the previous layers

The bed continues to descend until the last layer is formed and the part is complete, one of the fundamental points of interest of SLS is that it does not need the help structures used by many people. many other manufacturing innovations of added substances to prevent the plane from falling off during creation. The article rests on a bed of powder, no help is fundamental

SLS innovation really stands out when you need durable plastic parts. It is equipped to deliver fully solid parts suitable for real life testing and mold making, while other added substance production strategies can become tricky after a while; so mathematical modeling to properly optimize this process is necessary.

Keywords—3D printing , selective Laser Sintering (LS), polyamide12,numerical modelisation.

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