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# Investigation of the effect of Orange Peel surface texture on the laser sintered part

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Views count [View all metrics](#) [Full text options](#) [Export](#) **Abstract**[Author keywords](#)[Indexed keywords](#)[Sustainable Development Goals 2023](#)[SciVal Topics](#)[Metrics](#)**Abstract**

The purpose of this research is to investigate the effect of Orange Peel surface texture into the part's surface finish. The research analyzes the surface and microstructure of the Orange Peel surface texture of the laser sintered parts. The Orange Peel surface was identified to undergo surface roughness measurement and microstructure analysis. Then, a classification of the degree of Orange Peel severity was proposed based on the surface roughness measurement result. Finally, it was found that parts from recycle powder has poorer surface texture and has a large portion of unsintered powder particles.

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Grimm, T. , Witt, G. , Wiora, G. (2014) *Proceedings - ASPE 2014 Spring Topical Meeting: Dimensional Accuracy and Surface Finish in Additive Manufacturing*[View all 3 citing documents](#)

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The application of scanning electron microscope and melt flow index for orange peel in laser sintering process

Yusoff, W.A. (2017) *Indonesian Journal of Electrical Engineering and Computer Science*

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Based on the findings, a better understanding on powder recycling is defined especially in the scope of surface roughness and microstructure. The result will allow researcher to make improvement in laser sintering process. © 2011 IEEE.



## Author keywords

laser sintering; microstructure; Orange Peel surface texture; surface roughness

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