

Materials Today: Proceedings, vol. 5(9): 19738–19746

<https://www.sciencedirect.com/science/article/pii/S2214785318314597>

Laser metal deposition of titanium aluminide composites: A review

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ABSTRACT:

Development of additive manufacturing (AM) from three dimensional printers with ability of producing parts having no need for tooling continue to wax stronger in the manufacturing field. Laser metal deposition, a technique in AM is usually employed to create solid components from model of computer aided design (CAD). Feeding powder supported by shielding gas employed by this technique, is injected into a melt pool produced by accurately focused laser beam on a substrate. This paper discusses some of the AM technologies available, review on laser metal deposition of titanium aluminide on other metals and alloys, relationship between the processing parameters and structural and mechanical properties of products produced, limitation as regards to the processing parameters employed, applications and possible recommendations.