

The effect of HIP treatment on mechanical properties of titanium aluminide additively manufactured by EBM

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Titanium aluminide, one of important next generation high temperature materials, attracts intense R&D interests, and the application for aeronautics and space fields is seriously studied. TiAl components additively manufactured by us possesses more than 99% density and good mechanical properties, however residual voids are problematic in the area where cyclic properties are important, therefore HIP treatment is necessary. In this study, the effect of HIP treatment on the lamellar structure of TiAl alloy which showed excellent tensile ductility is investigated.

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HIP Process

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