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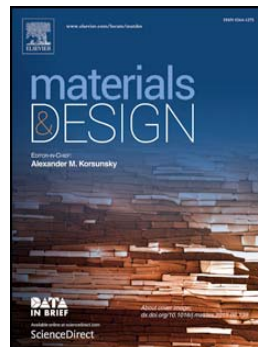
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Effect of original layer thicknesses on the interface bonding and mechanical properties of Ti-Al laminate composites

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Abstract: It is of great significance in high-temperature aeroengine applications for large-surface-area Ti-Al laminate composites to be fabricated into Ti-Al₃Ti parts by plastic forming and subsequent vacuum hot pressing. Then the original layer thicknesses have an important influence on the interface bonding and mechanical properties of Ti-Al laminate composites, but only few reports about it have been published so far. In the present study, vacuum hot pressing was employed to fabricate Ti-Al laminate composites using Ti and Al foils of different thickness. The resulting interface bond and mechanical properties of Ti-Al laminate composites were then studied to determine the optimum sheet configuration and thickness. To further assess their formability and develop a forming limit diagram (FLD), 0.1/0.15 Ti-Al laminate composites were operated on

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