عنوان مقاله:

Effect of TIG surface melting on microstructure and wear properties of flame-sprayed Al-B4C composite coatings on Al-Mg

محل انتشار:

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خلاصه مقاله:

To improve the wear properties of Al alloys, sometimes a metal matrix composite coating is produced on surface. In this study, Al-B4C composite coating was deposited on Al-Mg by flame spray technique and in order to improve the metallurgical bonding a Tungsten Inert Gas (TIG) melting on surface of the samples was used. The composite powder was produced by mechanical alloying and consisted of Al and B4C particles. The effect of coating process as well as the nature of the feedstock material on the coating microstructure and wear characteristics was studied. Microstructural evaluation of the samples was conducted by scanning electron microscopy (SEM) of surface composite layers. Wear resistance test by pin-on-disc method was conducted on coated samples

کلمات کلیدی:

Al-Mg, B4C, Composite coatings, Wear properties, TIG, Mechanical alloying