عنوان مقاله:

Synthesize of the Astaloy Mo powder and investigation of the mechanical properties of the produced parts

محل انتشار:

ششمین کنفرانس بین المللی متالورژی پودر (سال: 1397)

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

In this study, the properties of the Astaloy Mo powder synthesized by Tabriz Powder Metallurgy Company and Hoganas have been qualitatively compared. Elemental analysis, purity, particle shape, particle size and powder density are among the parameters studied. Elemental analysis was performed by Quantometer test and the purity of the synthesized powders was confirmed by X-ray diffraction. Morphology of the powders was investigated by scanning electron microscopy (SEM). Powder particle size distribution was measured by Image J software. According to ASTM B703 standard, powder density was carried out seven times by an operator and the result was very close to the density of powder produced by Hoganas Company. In order to evaluate the mechanical properties of the produced components, small flakes were prepared from powder and their hardness, wear and fatigue properties were evaluated. It was found that all of the properties of the powder, as well as the flakes prepared from the Astaloy Mo powder, synthesized by the Tabriz Powder Metallurgy Company, are very similar and close to the powder produced by Hoganas Co.

کلمات کلیدی: