

Investigation of Mechanical Properties from Liquid Salt Bath Oxinitrocarburizing Process on the P/M Low Alloy Steel

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Abstract

Oxinitrocarburizing process is one of the advanced surface treatment methods that improves corrosion, wear and fatigue behavior of materials. Powder metallurgy steels is one of such materials that it will be useful the application of this process whit considering to the presence of porosity on the surface of them. It has been studied the influence of oxinitrocarburizing process on the mechanical behavior of P/M low alloy steel in the liquid cyanate salt baths. Investigation of fatigue, wear and tensile strength of heat treated material and comparison with the as-sintered material are the results of this research.