Effect of Substrate Porosity on the Coating Adhesion of Iron Sintered Plated Parts with Infiltration Pretreatment

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Abstract

Plating of the sintered components has some problems due to interconnected porosities in those parts. In this research, iron-based sintered specimens infiltrated with copper were used. The pretreated specimens were then plated with nickel and the adhesion of coated layer to substrate was investigated. The results showed that the adhesion of coated layer in copper infiltrated iron sintered components can be independent of substrate density.

Keywords: Iron powder metallurgy, Interconnected porosity, Infiltration, Coationg adhesion