Title (en)

Method for depositing a stainless steel coating on a copper substrate

Title (de)

Beschichtungsverfahren einer Beschichtung aus rostfreiem Stahl auf einem Kupfersubstrat

Title (fr)

Procédé pour réaliser un revêtement d'acier inoxydable sur une matrice en cuivre

Publication

EP 2371994 A1 20111005 (FR)

Application

EP 11153762 A 20110209

Priority

FR 1052250 A 20100329

Abstract (en)

The process of producing a stainless steel coating on a part of a copper surface, comprises projecting non-molten or partially molten stainless steel particles on a copper matrix using a hot gas vector (2) at 70[deg] C, and heating the gas using a spray gun (1) comprising a heating unit (4). The hot gas vector is heated at a temperature of more than 700[deg] C. The stainless steel particles have an average size of 5-50 mu m. The coating has a thickness of 10-500 mu m. The copper matrix is a tubular piece or a plate. The gas is distributed at a speed of 400 m/s. The process of producing a stainless steel coating on a part of a copper surface, comprises projecting non-molten or partially molten stainless steel particles on a copper matrix using a hot gas vector (2) at 70[deg] C, and heating the gas using a spray gun (1) comprising a heating unit (4). The hot gas vector is heated at a temperature of more than 700[deg] C. The stainless steel particles have an average size of 5-50 mu m. The coating has a thickness of 10-500 mu m. The copper matrix is a tubular piece or a plate. The gas is distributed at a speed of 400 m/s. The mixture of hot gas vector and powder is distributed using a Laval nozzle (6).

Abstract (fr)

L'invention porte sur un procédé pour réaliser un revêtement d'acier inoxydable sur au moins une partie de la surface d'une matrice en cuivre, caractérisé en ce que des particules d'acier inoxydable non fondues ou partiellement fondues, sont projetées sur la matrice en cuivre à revêtir en utilisant un gaz vecteur chauffé à une température comprise entre 50 et 800°C, ledit gaz vecteur étant de l'azote ou de l'hélium.

IPC 8 full level

C23C 24/02 (2006.01); **C23C 24/04** (2006.01); **C23C 24/06** (2006.01)

CPC (source: EP)

C23C 24/04 (2013.01); F28D 2021/0042 (2013.01); F28F 13/18 (2013.01); F28F 21/085 (2013.01)

Citation (search report)

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