

Title (en)

Method of forming a protective diffusion layer on nickel, cobalt and iron based alloys

Title (de)

Verfahren zur Erzeugung einer Schutzdiffusionsschicht auf Legierungen auf Nickel-, Kobalt- und Eisenbasis

Title (fr)

Procédé de formation d'une couche protectrice de diffusion sur des alliages à base de nickel, cobalt et fer

Publication

**EP 0731187 A1 19960911 (EN)**

Application

**EP 96301522 A 19960306**

Priority

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Abstract (en)

The present invention is directed to a method for forming a protective diffusion layer on nickel, cobalt, and iron based alloy parts. The method has two steps. In a first step, a simple aluminide coating is formed on internal surfaces and any passageways (40) formed by the internal surfaces of the part. The simple aluminide coating forming step comprises providing a first source (16) of a gaseous aluminizing species, heating the source and the part, and maintaining a flow of an inert gas during the heating phase. Preferably, the inert gas is maintained at a critical forced flow rate to facilitate the formation of the coating in any passageways defined by the internal surfaces. The second step of the method comprises forming a PtAl<sub>2</sub> + NiAl, PtAl<sub>2</sub> + FeAl or PtAl<sub>2</sub> + CoAl coating on external surfaces of the part. <IMAGE>

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Citation (search report)

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