

Title (en)

A PROCESS FOR PRODUCING BODY CENTERED CUBIC (B2) NICKEL ALUMINIDE (NIAL) COATING OF CONTROLLED THICKNESS ON NICKEL-BASE ALLOY SURFACES

Title (de)

VERFAHREN ZUR HERSTELLUNG EINER BESCHICHTUNG AUS KUBISCH-RAUMZENTRIERTEM (B2) NICKELALUMINID (NIAL) MIT KONTROLLIERTER DICKE AUF NICKELBASISLEGIERUNGSOBERFLÄCHEN

Title (fr)

PROCÉDÉ DE PRODUCTION D'UN REVÊTEMENT D'ALUMINURE DE NICKEL (NIAL) À STRUCTURE CUBIQUE CENTRÉE (B2) D'ÉPAISSEUR CONTRÔLÉE SUR DES SURFACES D'ALLIAGE À BASE DE NICKEL

Publication

EP 2217736 A1 20100818 (EN)

Application

EP 07870514 A 20071026

Priority

IN 2007000514 W 20071026

Abstract (en)

[origin: WO2009053992A1] Aluminizing of nickel-base alloys and a process for producing body centered cubic (B2) nickel aluminide (NiAl) coating of controlled thickness on nickel-base alloys surfaces. Importantly, the process of producing the nickel aluminide (B2 NiAl phase) coatings on nickel-base alloys is directed to achieve high hardness of 800 - 1100 VHN and dimensional tolerance of 80 ± 30 microns coating thickness. The process achieves desired nickel aluminide coatings with minimum environmental emission of toxic chemicals fumes and is also environment friendly. Obtaining the nickel aluminide coating is specifically possible without the need for masking of the unwanted regions of the components and more importantly can be attended both on flat and curved surfaces thereby favouring wide scale utilities of such aluminizing process, facilitate fabrication industries required to carry out surface modifications and engineering (protective coating) on nickel-base alloys desired for high service temperatures such as nuclear industries, aircraft and gas turbine industries.

IPC 8 full level

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CPC (source: EP US)

C23C 4/02 (2013.01 - EP US); **C23C 4/08** (2013.01 - EP US); **C23C 4/18** (2013.01 - EP US)

Citation (search report)

See references of WO 2009053992A1

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