

Title (en)

METHOD FOR MANUFACTURING COMPONENTS WITH A NICKEL BASE ALLOY AS WELL AS COMPONENTS MANUFACTURED THEREWITH

Title (de)

VERFAHREN ZUR HERSTELLUNG VON KOMPONENTEN MIT EINER LEGIERUNG AUF NICKELBASIS SOWIE DAMIT HERGESTELLTE KOMPONENTEN

Title (fr)

PROCEDE DE FABRICATION DE COMPOSANTS EN ALLIAGE A BASE DE NICKEL ET COMPOSANTS AINSI FABRIQUES

Publication

EP 1667808 A2 20060614 (EN)

Application

EP 04765692 A 20040929

Priority

- EP 2004010894 W 20040929
- DE 10346281 A 20030930

Abstract (en)

[origin: CA2533118A1] The invention relates to a method for manufacturing components with a nickel base alloy as well as to components manufactured therewith. The respective components, in particular, are to have improved mechanical properties in comparison with the conventional solutions, and are to be producible in the most differently shaped form. During the production, proceeding takes place then such that a substrate core made of nickel or a nickel base alloy, in which nickel is included with a content of at least 20 wt%, will be coated on the surface with a binding agent as well as a metal powder in which nickel is included with a content of at least 20 wt% in addition to further alloy forming elements. Subsequently, a stepped thermal treatment is carried out in which the binding agent is expelled at first, and subsequent to this sintering of the metal powder is performed which results in alloying up a nickel substrate core and/or which develops a solid surface coating made of nickel base alloy.

IPC 1-7

B22F 3/10

IPC 8 full level

B22F 3/10 (2006.01); **B22F 7/00** (2006.01); **B22F 7/02** (2006.01)

CPC (source: EP KR US)

B22F 7/00 (2013.01 - KR); **B22F 7/006** (2013.01 - EP US); **B22F 7/02** (2013.01 - EP US); **B22F 2009/041** (2013.01 - EP US); **B22F 2998/00** (2013.01 - EP US); **B22F 2998/10** (2013.01 - EP US)

Citation (search report)

See references of WO 2005037467A2

Designated contracting state (EPC)

ES FR GB IT

DOCDB simple family (publication)

DE 10346281 A1 20050504; **DE 10346281 B4 20060622**; CA 2533118 A1 20050428; CA 2533118 C 20150707; CN 102653001 A 20120905; CN 1842387 A 20061004; EP 1667808 A2 20060614; EP 1667808 B1 20161109; ES 2612730 T3 20170518; JP 2007502368 A 20070208; JP 4647604 B2 20110309; KR 100741613 B1 20070723; KR 20060035789 A 20060426; US 2006280637 A1 20061214; WO 2005037467 A2 20050428; WO 2005037467 A3 20051027

DOCDB simple family (application)

DE 10346281 A 20030930; CA 2533118 A 20040929; CN 200480024494 A 20040929; CN 201210023200 A 20040929; EP 04765692 A 20040929; EP 2004010894 W 20040929; ES 04765692 T 20040929; JP 2006523621 A 20040929; KR 20067002219 A 20060201; US 57098406 A 20060308