

Title (en)
NICKEL-ALUMINIUM INTERMETALLIC BASIS ALLOY

Title (de)
INTERMETALLISCHE NICKEL-ALUMINIUM-BASISLEGIERUNG

Title (fr)
ALLIAGE DE BASE INTERMETALLIQUE NICKEL-ALUMINIUM

Publication
EP 0760869 A1 19970312 (DE)

Application
EP 95920844 A 19950519

Priority
• DE 4417936 A 19940521
• EP 9501921 W 19950519

Abstract (en)
[origin: DE4417936C1] A nickel-aluminium intermetallic basis alloy has a structure mainly made of the binary phase NiAl and further contains the elements chromium and tantalum. The total proportion of the elements chromium and tantalum amounts to maximum 12 % by atoms. The preferable content ranges lie from 0.3 to 3.8 % by atoms tantalum and from 1.0 to 9.0 % by atoms chromium. The nickel-aluminium intermetallic basis alloy is characterised in particular by a high oxidation resistance at high temperatures, such as 1350 DEG C. It is therefore suitable for producing pieces exposed to a high and continuous thermal stress, such as gas turbine blades. This high oxidation resistance allows additional anti-oxidation layers to be dispensed with.

IPC 1-7
C22C 19/03; **C22C 32/00**; **C22C 19/00**

IPC 8 full level
C22C 19/00 (2006.01); **C22C 19/03** (2006.01); **C22C 19/05** (2006.01); **C22C 32/00** (2006.01)

CPC (source: EP KR)
C22C 19/03 (2013.01 - KR); **C22C 19/057** (2013.01 - EP); **C22C 32/00** (2013.01 - KR)

Citation (search report)
See references of WO 9532314A1

Cited by
DE102017109156A1

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CH DE DK ES FR GB IT LI NL SE

DOCDB simple family (publication)
DE 4417936 C1 19951207; CN 1044493 C 19990804; CN 1150826 A 19970528; CZ 342696 A3 19970813; DE 59509221 D1 20010531; EP 0760869 A1 19970312; EP 0760869 B1 20010425; JP H10500453 A 19980113; KR 100359187 B1 20030124; KR 970703438 A 19970703; RU 2148671 C1 20000510; WO 9532314 A1 19951130

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