

Title (en)
Coating process

Title (de)
Beschichtungsverfahren

Title (fr)
Procede de formation d'un revetement

Publication
EP 1304396 B1 20050406 (DE)

Application
EP 02019625 A 20020903

Priority
DE 10151716 A 20011019

Abstract (en)
[origin: EP1304396A1] Alloy powder for coating a component especially made of an aluminum alloy, especially the valve seat region of a cylinder head of an internal combustion engine, comprises aluminum, silicon, and titanium. <??>An Independent claim is also included for a process for coating a component using the above alloy powder and a high energy laser beam. <??>Preferred Features: The alloy powder contains in addition to the base element aluminum 10-70, especially 20-50 wt.% silicon and 5-50, especially 10-40 wt.% titanium. The alloy powder contains up to 25, especially 1-15 wt.% nickel and/or up to 20, especially 1-10 wt.% copper, a high temperature lubricant, preferably up to 20, especially 5-10 wt.% boron nitride, graphite, boric oxide (B2O3) and/or cobalt/chromium oxide (Co/Cr2O2), and hard particles, preferably up to 30, especially 5-20 wt.% silicon carbide (SiC) and/or boron carbide (B4C).

IPC 1-7
C23C 4/06; **C23C 24/10**; **C22C 1/04**

IPC 8 full level
C22C 1/04 (2006.01); **C22C 32/00** (2006.01); **C23C 4/06** (2006.01); **C23C 24/10** (2006.01); **C23C 26/02** (2006.01)

CPC (source: EP)
C22C 1/0416 (2013.01); **C22C 32/00** (2013.01); **C23C 24/10** (2013.01); **C23C 26/02** (2013.01)

Cited by
CN110373668A; CN106367752A; CN103302285A; CN106757013A; CN112522546A; CN104018892A; CN109763125A; FR3097561A1; WO2020254371A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 1304396 A1 20030423; **EP 1304396 B1 20050406**; DE 10151716 A1 20030508; DE 50202698 D1 20050512

DOCDB simple family (application)
EP 02019625 A 20020903; DE 10151716 A 20011019; DE 50202698 T 20020903