

Title (en)

HARD METAL BODY AND METHOD FOR PRODUCING THE SAME

Title (de)

HARTMETALLKÖRPER UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

CORPS EN MÉTAL DUR ET PROCÉDÉ DE SON PRODUCTION

Publication

EP 2010687 B1 20130605 (DE)

Application

EP 07724394 A 20070420

Priority

- EP 2007003457 W 20070420
- DE 102006018947 A 20060424

Abstract (en)

[origin: WO2007121931A2] The invention relates to a method for producing a hard metal body, a powder for producing the hard metal and a produced hard metal body. According to the invention, said hard metal body consists of a hard material phase containing 60 mass % to 100 mass % WC and upto 40 mass % of a carbide, nitride, carbonitride or oxycarbonitride and at least one of the metals Ti, Zr, Hf, V, Ta, Cr, Mo, and one binding phase containing Co or a Co-alloy having upto 50 mass % of Ni, Fe or Cr, which constitutes 4 to 20 mass % of total hard metal. According to the invention, at least 10 vol. % of the WC is obtained by reacting a ternary W-Co-C-phase with carbon, said ternary W-Co-C-phase containing, in the dissolved form, prior to sintering, at least two of the metals Ti, Zr, Hf, V, Nb, Ta, Cr, Mo, Fe, Ni, Sc, Y, La, Ce, Re, Ru, Rh, Pt.

IPC 8 full level

C22C 29/08 (2006.01); **B22F 3/10** (2006.01); **B22F 3/15** (2006.01); **C22C 1/05** (2006.01)

CPC (source: EP)

B22F 3/1007 (2013.01); **B22F 3/15** (2013.01); **C22C 1/053** (2013.01); **C22C 29/08** (2013.01); **B22F 2005/001** (2013.01); **B22F 2999/00** (2013.01)

Cited by

RU2627531C1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

DE 102006018947 A1 20071025; EP 2010687 A2 20090107; EP 2010687 B1 20130605; WO 2007121931 A2 20071101; WO 2007121931 A3 20080306

DOCDB simple family (application)

DE 102006018947 A 20060424; EP 07724394 A 20070420; EP 2007003457 W 20070420