

Title (en)

HARD METAL IN PARTICULAR FOR CUTTING STONE, CONCRETE AND ASPHALT

Title (de)

HARTMETALL FUER INSBESONDERE GESTEIN-, BETON- UND ASPHALTSCHNEIDEN

Title (fr)

METAL DUR PERMETTANT DE TAILLER LA ROCHE, LE BETON ET L'ASPHALTE

Publication

EP 1520056 B1 20080130 (DE)

Application

EP 03763783 A 20030710

Priority

- DE 10231303 A 20020710
- DE 10248898 A 20021018
- DE 10258537 A 20021214
- EP 0307462 W 20030710

Abstract (en)

[origin: WO2004007784A2] The invention relates to a hard metal made from WC for tools for the mechanical working of stone, concrete and asphalt in particular, with 5 to 25 wt. % of binder made from Co or Co and Ni and with a coercivity field strength of up to 30.0 kA/m or whereby the binder is made from at least 5 vol. % of nanoparticles with ordered phases of W, Co and/or C. The hard metal has a magnetic saturation (σ sigma or $4\pi\sigma$ sigma, each in units of microtesla cubic meters per kilogram) depending on the co-proportion (X) in wt. % of the hard metal in a range of $\sigma = 0.11X$ to $\sigma = 0.137X$ or $4\pi\sigma = 0.44\pi X$ to $4\pi\sigma = 0.548\pi X$.

IPC 8 full level

C22C 29/08 (2006.01); **C22C 26/00** (2006.01)

CPC (source: EP US)

C22C 29/08 (2013.01 - EP US); **B22F 2005/001** (2013.01 - EP US); **Y10T 428/25** (2015.01 - EP US)

Designated contracting state (EPC)

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

Designated extension state (EPC)

LT LV

DOCDB simple family (publication)

WO 2004007784 A2 20040122; WO 2004007784 A3 20040408; AT E385262 T1 20080215; AU 2003250024 A1 20040202;
AU 2003250024 A8 20040202; DE 50309106 D1 20080320; EP 1520056 A2 20050406; EP 1520056 B1 20080130; ES 2300616 T3 20080616;
US 2006093859 A1 20060504

DOCDB simple family (application)

EP 0307462 W 20030710; AT 03763783 T 20030710; AU 2003250024 A 20030710; DE 50309106 T 20030710; EP 03763783 A 20030710;
ES 03763783 T 20030710; US 51766105 A 20051229