

Title (en)

Cemented carbide, coated articles having the cemented carbide as base, in particular coated hard tools

Title (de)

Sinterkarbid, beschichteter Gegenstand mit dem Sinterkarbid als Substrat, insbesondere beschichtetes Schneidewerkzeug

Title (fr)

Carbure cémenté, article revêtu ayant le carbure cémenté comme base, en particuliers des outils durs revêtus

Publication

EP 0874063 A1 19981028 (EN)

Application

EP 98303258 A 19980427

Priority

- JP 12332197 A 19970425
- JP 9729798 A 19980409

Abstract (en)

Novel cemented carbide having improved hardness and corrosion resistance comprising 3 to 25 % by weight of the sum of Co and Ni, 10 to 30 % by weight of chromium in the term of chromium carbide with respect to the sum of Co and Ni and the balance being tungsten carbide and inevitable impurities. The cemented carbide is advantageously used in cutting tools for hard-to-cut materials and in various fields which require improved hardness and corrosion resistance such as structural parts, machine parts and ornaments. On a base made of the cemented carbide, the cutting tool has a surface layer including at least one layer made of at least one compound selected from a group comprising nitrides, carbides, carbonitrides and oxides of at least one element selected from a group comprising IVa elements, Va elements, Al, B and Si.

IPC 1-7

C22C 29/08; **B23B 27/14**

IPC 8 full level

B23B 27/14 (2006.01); **C22C 29/06** (2006.01); **C22C 29/08** (2006.01); **C23C 30/00** (2006.01)

CPC (source: EP US)

C22C 29/067 (2013.01 - EP); **C23C 30/005** (2013.01 - EP US); **B22F 2999/00** (2013.01 - EP)

C-Set (source: EP US)

B22F 2999/00 + **B22F 1/052** + **C22C 29/08**

Citation (search report)

- [Y] EP 0665308 A1 19950802 - SUMITOMO ELECTRIC INDUSTRIES [JP]
- [XY] BANERJEE D ET AL: "Effect of binder-phase modification and Cr/sub 3/C/sub 2/ addition on properties of WC-10Co cemented carbide", JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, OCT. 1995, USA, vol. 4, no. 5, ISSN 1059-9495, pages 563 - 572, XP000541466
- [XY] PATENT ABSTRACTS OF JAPAN vol. 097, no. 004 30 April 1997 (1997-04-30)
- [YD] PATENT ABSTRACTS OF JAPAN vol. 010, no. 161 (C - 352) 10 June 1986 (1986-06-10)

Cited by

CN114700656A; EP1122226B2

Designated contracting state (EPC)

DE FR GB IT SE

DOCDB simple family (publication)

EP 0874063 A1 19981028; IL 124207 A 20010319; JP H116025 A 19990112

DOCDB simple family (application)

EP 98303258 A 19980427; IL 12420798 A 19980423; JP 9729798 A 19980409