

Title (en)
Cutting tool with blade made from fine-crystalline diamond

Title (de)
Schneidwerkzeug mit Klinge aus feinkristallinem Diamant

Title (fr)
Outil de coupe doté d'une lame en diamant cristallin fin

Publication
EP 2495080 A1 20120905 (DE)

Application
EP 11001693 A 20110301

Priority
EP 11001693 A 20110301

Abstract (en)
The cutting tool has a core (1) that is provided with two flanks tapered to an inner cut, where the inner cut is provided with a rounding radius. A fine crystalline diamond layer (2) is provided with a central particle size. The diamond layer is attached in area of the inner cut. The diamond layer is provided with another rounding radius. The latter rounding radius is smaller than the former rounding radius. An independent claim is also included for a method for manufacturing a cutting tool.

Abstract (de)
Die vorliegende Erfindung betrifft ein Schneidwerkzeug, insbesondere in Form einer Rasierklinge, eines Skalpell, eines Messers, eines Maschinenmessers, einer Schere, etc., das eine synthetische Diamantschicht mit einer Schneidkante aufweist. Die Diamantschicht besteht dabei aus feinkristallinem Diamant.

IPC 8 full level
B26B 21/58 (2006.01); **B26B 21/60** (2006.01)

CPC (source: EP)
B26B 21/58 (2013.01); **B26B 21/60** (2013.01)

Citation (applicant)

- WO 9937437 A1 19990729 - GLUCHE PETER [DE], et al
- DE 60210449 T2 20061102 - ELEMENT SIX LTD [GB]
- WO 03101683 A1 20031211 - ELEMENT SIX LTD [GB], et al
- DE 102004052068 A1 20060427 - GFD GES FUER DIAMANTPRODUKTE M [DE]
- WO 9804382 A1 19980205 - DRUKKER INT BV [NL], et al
- R. MORRELL ET AL., INT. JOURNAL OF REFRACTORY METALS & HARD MATERIALS, vol. 28, 2010, pages 508 - 515
- R. DANZER ET AL.: "Technische keramische Werkstoffe", HVB VERLAG

Citation (search report)

- [X] US 6289593 B1 20010918 - DECKER THOMAS G [US], et al
- [XA] WO 02100610 A1 20021219 - DIAMANX PRODUCTS LTD [GB], et al
- [A] DE 3403196 A1 19850801 - DAHLBERG REINHARD
- [A] DE 2512001 A1 19751023 - ROTEL HOLDING AG
- [A] WO 2011008617 A1 20110120 - GILLETTE CO [US], et al

Cited by
ITBS20130073A1; EP2728300A1; WO2014188322A1; WO2019084768A1; US11230024B2

Designated contracting state (EPC)
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