

Title (en)

Hard metal, or ceramics, blank and method and tool for manufacture of same.

Title (de)

Hartmetall- oder Keramikrohling sowie Verfahren und Werkzeug zur Herstellung derselben.

Title (fr)

Lopin de métal dur ou céramique et méthode et outil pour la manufacture de ceux-ci.

Publication

EP 0458774 B1 19950802 (DE)

Application

EP 91890093 A 19910502

Priority

AT 113290 A 19900522

Abstract (en)

[origin: EP0458774A1] The invention relates to a hard-metal or ceramic blank, and to a method and an extrusion tool for its manufacture. The invention provides that the blank is extruded through a die, the die (1) having on its inner wall surface (2) a number of sliding surfaces (3) which cross-sectionally complement one another to form a polygon (4), which sliding surfaces (3) follow a twisted path over the length of the die. The fabricated blank has a twisted shape corresponding to the shape of the die and is suitable for the production of rotating tools, for example drills.

IPC 1-7

B21C 23/14; **B23P 15/32**; **B22F 5/00**

IPC 8 full level

B21C 23/14 (2006.01); **B21C 25/00** (2006.01); **B22F 5/00** (2006.01); **B22F 5/10** (2006.01); **B23P 15/32** (2006.01); **B28B 3/26** (2006.01)

CPC (source: EP)

B21C 23/147 (2013.01); **B21C 25/00** (2013.01); **B22F 5/10** (2013.01); **B28B 3/26** (2013.01); **B22F 2005/001** (2013.01); **B22F 2005/004** (2013.01); **B22F 2998/00** (2013.01)

Cited by

US9643279B2; DE202014000866U1; DE4211827A1; US10583631B2; US10105790B2; WO2011138422A2; WO9818587A3; WO2004013067A3; WO2011138422A3; US6669414B1; US7101167B2; US11311959B2; WO0074870A1; WO2013002869A3; US9862054B2; US10500674B2

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL SE

DOCDB simple family (publication)

EP 0458774 A1 19911127; **EP 0458774 B1 19950802**; **EP 0458774 B2 19991215**; AT 398286 B 19941125; AT A113290 A 19940315; AT E125737 T1 19950815; DE 59106114 D1 19950907; ES 2077838 T3 19951201; ES 2077838 T5 20000316

DOCDB simple family (application)

EP 91890093 A 19910502; AT 113290 A 19900522; AT 91890093 T 19910502; DE 59106114 T 19910502; ES 91890093 T 19910502