

Title (en)  
HIGH GRAIN CONCENTRATION GRINDING TOOL

Title (de)  
SCHLEIFWERKZEUG MIT HOHER KORNBKONZENTRATION

Title (fr)  
OUTIL ABRASIF A CONCENTRATION DE GRAIN ELEVEE

Publication  
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Application  
**EP 07747781 A 20070119**

Priority  
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Abstract (en)  
[origin: WO2007094703A1] The invention relates to grinding cutting, drilling and boring tools based on abrasive grains and a metal binder. The inventive grinding tool comprises a working part made of a mixture, which is distributed through the volume thereof and consists of abrasive grains bound by a binding metal, and a holder or a hole for inserting a holder, wherein the content of different composition grains, such as natural and synthetic diamond, electrocorundum, corundum and silicon carbide, in the grinding tool is greater than 50% of the tool working part and the remaining space is filled with the binder. Said grinding tool is characterised in that the size of abrasive grains contained therein ranges from 1 to 2000 mkm and the binder is embodied in the form of different metals and the alloys thereof based on copper, nickel, manganese, phosphorus, tin and germanium, wherein the abrasive grains are coated with metal layer whose thickness is equal to or greater than 1 mkm and which is connected to the binding metal by means of a diffusion layer, and the melting point of the coating metal is equal to or greater than the melting point of the binding metal or the different metal alloys. Said invention improves the quality of operating properties of abrasive and grinding tools and borers and increases the performance and service life thereof.

IPC 8 full level  
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CPC (source: EP)  
**B24D 3/06** (2013.01)

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• [X] US 5116568 A 19920526 - SUNG CHIEN-MIN [US], et al  
• See references of WO 2007094703A1

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