

Title (en)

POLYCRYSTALLINE DIAMOND ABRASIVE COMPACTS

Title (de)

SCHLEIFPRESSKÖRPER AUS POLYKRISTALLINEM DIAMANT

Title (fr)

DISPOSITIFS COMPACTS ABRASIFS EN DIAMANT POLYCRISTALLIN

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2008053431A1] This invention is for a polycrystalline diamond composite material comprising diamond particles and a binder phase, the polycrystalline diamond composite material defining a plurality of interstices and the binder phase being distributed in the interstices to form binder pools. The invention is characterised in that there is present in the binder phase a separate tungsten carbide particulate phase in excess of 0.05 total volume %, but not greater than 2 volume %, expressed as a % of the total composite material and that the tungsten carbide particulate phase is homogenously distributed in the composite material in such a manner that the relative standard deviation of the tungsten carbide grain size is less than 1. The invention extends to a method of manufacturing the composite material and to a polycrystalline diamond abrasive compact comprising the diamond composite material for use in cutting or abrading of a substrate or in drilling applications.

IPC 8 full level

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CPC (source: EP KR US)

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