

Title (en)

PROCESS FOR MANUFACTURING A PART COMPRISING A BLOCK OF DENSE MATERIAL CONSTITUTED OF HARD PARTICLES AND OF BINDER PHASE HAVING A GRADIENT OF PROPERTIES, AND RESULTING PART

Title (de)

VERFAHREN ZUR HERSTELLUNG EINES TEILS, UMFASSEND EINEN BLOCK AUS DICHTEM MATERIAL, BESTEHEND AUS HARTEN TEILCHEN UND BINDEMITELPHEASE, MIT EIGENSCHAFTSGRADIENT UND RESULTIERENDES TEIL

Title (fr)

PROCEDE DE FABRICATION D'UNE PIECE COMPRENANT UN BLOC EN MATERIAU DENSE CONSTITUE DE PARTICULES DURES ET DE PHASE LIANTE PRESENTANT UN GRANDIENT DE PROPRIETES, ET PIECE AINSI OBTENUE

Publication

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Application

**EP 09755981 A 20091007**

Priority

- FR 2009051910 W 20091007
- FR 0856771 A 20081007

Abstract (en)

[origin: WO2010040953A1] Process for manufacturing a part comprising a block (1) made of a dense material constituted of hard particles, of the same nature or of a different nature, dispersed in a binder phase, the material having a solidus temperature  $T_s$  starting from which the binder phase is liquid, characterized in that deposited over at least one portion of the surface of the block of dense material (1), is an active coating (2) constituted of a material capable of reacting chemically with the dense material when the assembly is brought above a minimum reaction temperature  $T_r$  and in that the block (1) coated with the active coating (2) is subjected to a heat treatment comprising heating, then a hold for a time  $t_m$  at a hold temperature  $T_m$  greater than or equal to the minimum reaction temperature  $T_r$  followed by cooling to ambient temperature.

IPC 8 full level

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CPC (source: EP US)

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