

Title (en)
METHOD FOR PRODUCING A HARD METAL PROJECTION

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES HARTMETALLANSATZES

Title (fr)
PROCEDE DE PRODUCTION D'UN ELEMENT SAILLANT EN METAL DUR

Publication
EP 1373585 B2 20090729 (DE)

Application
EP 02703388 A 20020308

Priority
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• AT 2302001 U 20010329

Abstract (en)
[origin: WO02079531A2] The invention relates to a method for producing a hard metal projection made of hard material portions, binding metal portions and water-soluble pressing auxiliary agent portions by drying a wet slurry, which contains the constituents and pure water as the liquid phase. According to the invention, the hard material and binding metal portions are ground with water while forming a wet slurry and, after grinding, the pressing auxiliary agent portions are admixed in the form of an emulsion to the wet slurry. The emulsion is produced with the aid of an emulsifier while adding water.

IPC 8 full level
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C-Set (source: EP US)
B22F 2998/10 + B22F 9/04 + B22F 9/026

Citation (opposition)
Opponent :
• ""Pulvermetallurgie der Hartmetalle" 4. Vorlesung, Seiten 4.1 bis 4.9, 4.11 bis 4.17", 1992, FACHVERBAND PULVERMETALLURGIE, HAGEN, article H. KOASKA
• BEISS, RUTHARDT, WARLIMONT: "Landolt-Börnstein Numerical Data and Functional Relationships, Group VIII:Advanced Materials and Technologies, Materials Subvolume A, Power Metallurgy Data: Part 2 Refractory, Hard and Intermetallic Materials, ISBN 1619-4208 Seiten 345 - 347", vol. 2, 1999, SPRINGER VERLAG, TUNGSTEN, ISBN: 0-306-45053-4, article LEICHTFRIED,SAUTHOFF,SPRIGGS

Cited by
EP2860274A2; US10538829B2; EP2857124A1; US9475945B2; US9796633B2

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WO 02079531 A2 20021010; WO 02079531 A3 20021128; AT 4928 U1 20020125; AT E295903 T1 20050615; BG 107223 A 20030731; BG 65809 B1 20091231; BR 0204680 A 20030610; BR 0204680 B1 20101005; CA 2409394 A1 20021119; CA 2409394 C 20070619; CN 1206381 C 20050615; CN 1460126 A 20031203; DE 50203144 D1 20050623; DK 1373585 T3 20050905; DK 1373585 T4 20091109; EP 1373585 A2 20040102; EP 1373585 B1 20050518; EP 1373585 B2 20090729; ES 2240693 T3 20051016; ES 2240693 T5 20091030; IL 152969 A0 20030624; IL 152969 A 20060611; JP 2004518824 A 20040624; JP 4044441 B2 20080206; KR 100896827 B1 20090512; KR 20030007547 A 20030123; MX PA02011766 A 20030410; PL 201615 B1 20090430; PL 359344 A1 20040823; TW 565482 B 20031211; US 2003075012 A1 20030424; US 6733562 B2 20040511

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