

Title (en)

MATERIAL FOR THE POWDER-METALLURGICAL PRODUCTION OF SHAPED PARTS, IN PARTICULAR VALVE SEAT RINGS OR VALVE GUIDES WITH HIGH RESISTANCE TO WEAR

Title (de)

WERKSTOFF ZUR PULVERMETALLURGISCHEN HERSTELLUNG VON FORMTEILEN, INSBESONDERE VON VENTILSITZRINGEN ODER VENTILFÜHRUNGEN MIT HOHER VERSCHLEISSFESTIGKEIT

Title (fr)

MATERIAU S'UTILISANT EN METALLURGIE DES POUDRES POUR PRODUIRE DES PIECES MOULEES, NOTAMMENT DES SIEGES DE SOUPE RAPPORTES OU DES GUIDES DE SOUPE TRES RESISTANTS A L'USURE

Publication

EP 0881958 A1 19981209 (DE)

Application

EP 97905071 A 19970221

Priority

- DE 19606270 A 19960221
- EP 9700837 W 19970221

Abstract (en)

[origin: DE19606270A1] The invention concerns a material for the powder-metallurgical production from a powder mixture containing at least approximately 50 wt.% copper in particular of valve seat rings or valve guides with high resistance to wear and corrosion and high heat conductivity. The starting powder mixture consists of between 50 and 90 wt.% of a basic powder, containing the copper portion, and between 10 and 50 wt.% of a powdery molybdenum-containing alloy flux. The basic powder is a copper powder which is dispersion-hardened by Al₂O₃, has an Al₂O₃ content of between 0.1 and 1.1 wt.%, and is produced by pulverizing a Cu-Al melt followed by heating in an oxidizing atmosphere. The invention further concerns the use of a dispersion-hardened powder of this type for the powder-metallurgical production in particular of wear and corrosion-resistant valve seat rings or valve guides with high heat conductivity. Finally, the invention concerns a method of producing such valve seat rings or valve guides.

IPC 1-7

B22F 1/00; **C22C 32/00**

IPC 8 full level

B22F 1/00 (2006.01); **B22F 5/00** (2006.01); **C22C 1/04** (2006.01); **C22C 9/00** (2006.01); **C22C 9/01** (2006.01); **C22C 32/00** (2006.01)

CPC (source: EP US)

B22F 1/09 (2022.01 - EP US); **C22C 9/00** (2013.01 - EP US); **C22C 19/07** (2013.01 - EP US); **C22C 27/04** (2013.01 - EP US); **C22C 32/0021** (2013.01 - EP US); **C22C 33/02** (2013.01 - EP US)

Citation (search report)

See references of WO 9730808A1

Cited by

DE102016109539A1; DE102012013226A1; CN108026800A; EP3358156A4

Designated contracting state (EPC)

DE

DOCDB simple family (publication)

DE 19606270 A1 19970828; DE 59703672 D1 20010705; EP 0881958 A1 19981209; EP 0881958 B1 20010530; JP 2001500567 A 20010116; JP 4272706 B2 20090603; US 6039785 A 20000321; WO 9730808 A1 19970828

DOCDB simple family (application)

DE 19606270 A 19960221; DE 59703672 T 19970221; EP 9700837 W 19970221; EP 97905071 A 19970221; JP 51611097 A 19970221; US 12561298 A 19981015