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 SOUPAPE RAPPORTES OU DES GUIDES DE SOUPAPE TRES RESISTANTS A L'USURE

Publication

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Application

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Priority

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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.

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