

Title (en)

PROCESS FOR PRODUCING SHAPED ARTICLES FROM SPHERICAL METAL-PARTICLE POWDERS

Publication

EP 0029389 B1 19840314 (FR)

Application

EP 80401633 A 19801114

Priority

FR 7928066 A 19791114

Abstract (en)

[origin: US4391772A] The invention is directed to the production of non-fragile shaped members from powders comprising spheroidal metal particles. For this purpose, the invention provides a process for the production of shaped parts from powders comprising spheroidal metal particles which are mixed with from 0.2% to 2% of lubricant, comprising the combination of the following successive steps, performed in the below-indicated order: (a) mixing the powder formed by spheroidal metal particles with an amount of water-soluble cellulose gum between 0.2% and 2%, and with an amount of water which is also between 0.2% and 2%; (b) a cold compacting operation; (c) an optional oven drying operation; (d) a two-phase sintering operation, in an atmosphere which is neutral or reducing with respect to the compacted powder, the first phase being effected at a temperature of from 300 DEG to 500 DEG C. and the second phase being effected at a temperature which is substantially higher and variable with the nature of the powder.

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Cited by

US4955798A; US4676831A; EP0633083A1; FR2707191A1; US5460641A; US6334882B1; WO9936214A1; WO8501230A1; US6235076B1; US6503445B2

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