

Title (en)

WEAKLY-MAGNETIC SINTERED COMPOSITE-MATERIAL AND A METHOD FOR PRODUCTION THEREOF

Title (de)

GESINTERTER WEICHMAGNETISCHER VERBUNDWERKSTOFF UND VERFAHREN ZU DESSEN HERSTELLUNG

Title (fr)

MATERIAU COMPOSITE FRITTE MAGNETIQUE DOUX ET SON PROCEDE DE PRODUCTION

Publication

EP 1166290 A1 20020102 (DE)

Application

EP 00987036 A 20001026

Priority

- DE 0003801 W 20001026
- DE 19960095 A 19991214

Abstract (en)

[origin: WO0145116A1] The invention relates to a weakly-magnetic, sintered, composite-material, in particular for use in magnetic valves, and a method for production of said composite-material. According to the invention, firstly, a starting mixture is produced, which, after sintering, will form the weakly-magnetic composite-material, comprising a ferromagnetic first starting component (11), which is, in particular, a powder, as main constituent and a ferritic second starting component (12), as a minor constituent, as well as, optionally, an auxiliary pressing agent. In the composite-material produced after sintering the starting mixture, the second starting component (12), forms at least essentially, the grain boundary phase. According to the invention, the production method comprises the following method steps: preparation of the starting mixture, mixing the starting mixture, compressing the starting mixture in a matrix under elevated pressure, removing the binder from the compressed starting material and sintering the compressed starting material to give the composite-material.

IPC 1-7

H01F 1/24; **H01F 1/33**; **F16K 31/06**

IPC 8 full level

B22F 3/00 (2006.01); **B22F 3/24** (2006.01); **B22F 7/00** (2006.01); **F16K 31/06** (2006.01); **H01F 1/22** (2006.01); **H01F 1/24** (2006.01); **H01F 1/33** (2006.01); **H01F 1/34** (2006.01); **H01F 41/02** (2006.01)

CPC (source: EP KR US)

F16K 31/06 (2013.01 - EP US); **H01F 1/24** (2013.01 - EP US); **H01F 1/33** (2013.01 - EP US); **H01F 41/00** (2013.01 - KR); **H01F 41/0246** (2013.01 - EP US)

Citation (search report)

See references of WO 0145116A1

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

WO 0145116 A1 20010621; DE 19960095 A1 20010705; EP 1166290 A1 20020102; JP 2003517195 A 20030520; KR 20020005586 A 20020117; US 6726740 B1 20040427

DOCDB simple family (application)

DE 0003801 W 20001026; DE 19960095 A 19991214; EP 00987036 A 20001026; JP 2001545321 A 20001026; KR 20017010238 A 20010813; US 91377601 A 20011113