

Title (en)

Method for producing a lightweight moulded body and moulded body from foamed metal

Title (de)

Verfahren zur Herstellung eines leichtgewichtigen Formkörpers und Formkörper aus Metallschaum

Title (fr)

Procédé de réalisation d'un corps moulé léger et corps moulé en mousse métallique

Publication

EP 1266973 A3 20040818 (DE)

Application

EP 02450137 A 20020614

Priority

AT 9352001 A 20010615

Abstract (en)

[origin: EP1266973A2] Production of a lightweight molded body comprises forming a metal foam from a molten metal by introducing gas or a gas mixture into it; partially inserting it into a mold and allowing to solidify. The metal foam has a monomodal distribution of the dimension of the hollow chambers. The molten metal boundary walls containing the hollow chambers have partially planar regions and the heat of solidification of the melt is removed. Preferred Features: The hollow chambers re completely separated from each other by a metal matrix made from aluminium or aluminium alloy. The particles of the metal matrix have a particle size of 1-50, preferably 3-20 mm.

IPC 1-7

C22C 1/08; **C22C 32/00**

IPC 8 full level

B22D 19/14 (2006.01); **B22D 1/00** (2006.01); **B22D 25/00** (2006.01); **B22D 25/02** (2006.01); **B22D 27/09** (2006.01); **C22C 1/08** (2006.01); **C22C 1/10** (2006.01); **C22C 21/00** (2006.01)

CPC (source: EP)

B22D 25/005 (2013.01); **C22C 1/08** (2013.01); **C22C 1/083** (2023.01); **C22C 1/086** (2023.01); **B22F 2003/1106** (2013.01); **B22F 2998/00** (2013.01)

C-Set (source: EP)

B22F 2998/00 + **B22F 3/1103** + **C22C 32/00**

Citation (search report)

- [DX] US 5281251 A 19940125 - KENNY LORNE D [CA], et al
- [DX] EP 0483184 A1 19920506 - NORSK HYDRO AS [NO]
- [A] MIYOSHI T ET AL: "Aluminum foam, 'ALPORAS': the production process, properties and applications", MATERIALS RESEARCH SOCIETY SYMPOSIUM PROCEEDINGS, MATERIALS RESEARCH SOCIETY, PITTSBURG, PA, US, vol. 521, 1998, pages 133 - 137, XP002225837, ISSN: 0272-9172

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EP1482062A1; CN110438360A; EP1419835A1; US7174946B2; WO2019070487A1; US7144636B2; US7959852B2

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EP 02450137 A 20020614; AT 9352001 A 20010615; CA 2390766 A 20020614; CZ 20022035 A 20020611; ES 02450137 T 20020614; JP 2002204813 A 20020611; NO 20022756 A 20020610; PT 02450137 T 20020614; SI 200231055 T 20020614