Title (en)

METHOD FOR PRODUCING INVESTMENT CASTINGS

Title (de)

VERFAHREN ZUR FEINGUSSHERSTELLUNG

Title (fr)

PROCÉDÉ DE PRODUCTION DE MOULAGES À MOULES PERDUS

Publication

EP 2744612 B1 20151021 (EN)

Application

EP 12772821 A 20120810

Priority

- PL 39603011 A 20110819
- PL 2012000068 W 20120810

Abstract (en)

[origin: WO2013028086A2] A method for producing investment castings, preferably in ceramic moulds, from alloys based on Al, Mg, Cu, Zn and Fe, characterised in that the ceramic mould is baked at temperatures of 800-1000°C for 2-4 hours, then the mould is cooled to a temperature of 20-950°C and is held at this temperature for 10-40 minutes, then it is poured with liquid alloy overheated by from 50 to 200°C above the initial melting point and after a lapse of 10-100 seconds, the mould is immersed at a fixed or variable speed in a liquid cooling medium, which is a 1 -99 volume percent aqueous solution of liquid polymer at a temperature of 15-85°C. Preferably, the liquid polymer is a polymer of the PAG or PVP, or ACR, or PEO type. Preferably, the ceramic moulds made of aluminosilicate, or high alumina refractory materials, especially based on synthetic sand, for example Molochite, are used.

IPC 8 full level

B22D 27/04 (2006.01)

CPC (source: EP US)

B22D 27/04 (2013.01 - US); **B22D 27/045** (2013.01 - EP US); **B22D 30/00** (2013.01 - EP US)

Citation (examination)

SCOTT MACKENZIE D: "Advances in Quenching - A Discussion of Present and Future Technologies", HEAT TREATING AND SURFACE ENGINEERING. PROCEEDINGS OF THE 22ND HEAT TREATING SOCIETY CONFERENCE AND THE 2ND INTERNATIONAL SURFACE ENGINEERING CONGRESS, 15-17 SEPTEMBER 2003, INDIANA CONVENTION CENTER, INDIANAPOLIS, INDIANA, USA, ASM INTERNATIONAL, US, 15 September 2003 (2003-09-15), pages 228 - 239, XP009184673, ISBN: 0-87170-797-7

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