

Title (en)

METHOD FOR PRODUCING CASTINGS, MOLDING SAND AND ITS USE FOR CARRYING OUT SAID METHOD

Title (de)

VERFAHREN ZUM HERSTELLEN VON GUSSSTÜCKEN, FORMSAND UND SEINE VERWENDUNG FÜR DIE DURCHFÜHRUNG DES VERFAHRENS

Title (fr)

PROCEDE DE REALISATION DE PIECES MOULEES, SABLE DE COULEE, ET SON UTILISATION POUR LA MISE EN OEUVRE DU PROCEDE

Publication

**EP 1425121 B1 20060419 (DE)**

Application

**EP 02772298 A 20020913**

Priority

- DE 10145417 A 20010914
- DE 10209224 A 20020304
- DE 10209183 A 20020304
- EP 0210301 W 20020913

Abstract (en)

[origin: WO03024642A1] The invention relates to a method which allows production of high-quality, complex castings and removal of the mold parts from the casting after casting in a simple and reliable manner. The inventive method comprises the following steps: producing a molding material by mixing a flowable base molding material that is inert vis-à-vis the molten bath and that has a lower coefficient of expansion when heated than silica sand, and a binder that has a different expansion behavior when heated than the molding material, producing a mold part from the molding material, assembling a casting mold using the mold parts, pouring the molten bath into the casting mold to give a casting, cooling the casting for a solidification and cooling interval in which the mold part automatically fragments, removing the fragments of the mold part from the casting, and processing the fragments of the molding material to a flowable base molding material.

IPC 8 full level

**B22C 1/00** (2006.01); **B22C 1/10** (2006.01); **B22C 1/18** (2006.01); **B22C 5/00** (2006.01); **B22C 9/10** (2006.01); **B22C 9/12** (2006.01); **B22C 9/24** (2006.01); **B22D 21/00** (2006.01); **B22D 33/04** (2006.01); **B28B 7/34** (2006.01)

CPC (source: EP KR US)

**B22C 1/00** (2013.01 - KR); **B22C 1/08** (2013.01 - EP US); **B22C 1/18** (2013.01 - KR); **B22C 9/10** (2013.01 - EP US); **B22C 9/12** (2013.01 - EP US)

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR IE IT LI LU MC NL PT SE SK TR

DOCDB simple family (publication)

**WO 03024642 A1 20030327**; AT E323563 T1 20060515; BR 0212534 A 20041019; CA 2461797 A1 20030327; CN 1298456 C 20070207; CN 1599651 A 20050323; DE 50206490 D1 20060524; EP 1425121 A1 20040609; EP 1425121 B1 20060419; ES 2262845 T3 20061201; HU P0401547 A2 20050829; JP 2005502473 A 20050127; KR 20040070330 A 20040807; MX PA04002424 A 20050411; PL 367736 A1 20050307; US 2004261969 A1 20041230

DOCDB simple family (application)

**EP 0210301 W 20020913**; AT 02772298 T 20020913; BR 0212534 A 20020913; CA 2461797 A 20020913; CN 02820431 A 20020913; DE 50206490 T 20020913; EP 02772298 A 20020913; ES 02772298 T 20020913; HU P0401547 A 20020913; JP 2003528331 A 20020913; KR 20047003845 A 20020913; MX PA04002424 A 20020913; PL 36773602 A 20020913; US 48948504 A 20040816