

Title (en)
PROCESS FOR PRODUCING CAST ITEM

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES GUSSTEILS

Title (fr)
PROCESSUS DE PRODUCTION D'UN ARTICLE COULÉ

Publication
EP 1721689 B1 20110518 (EN)

Application
EP 05710586 A 20050223

Priority
• JP 2005002893 W 20050223
• JP 2004049428 A 20040225

Abstract (en)
[origin: EP1721689A1] A casting process that employs a collapse-prone core is disclosed. The process includes the steps of mixing one or more kind of an aggregate granular material, one or more kind of a water-soluble binder, and water, to form a mixture of the aggregate granular material, and stirring the mixture to cause it to foam. Such a mixture prevents the generation of undesirable gases when molding a mold and pouring molten metal into the mold. The process also includes the steps of charging the foamed mixture into a molding space, evaporating the moisture within the charged mixture to harden the charged mixture to mold a mold with the hardened mixture, assembling at least one mold that is cast in the hardened mixture with the mating mold to form a completed mold, pouring molten metal into the completed mold, removing the completed mold from a cast article that is composed of the solidified molten metal during a process of cooling the cast article after the molten metal is solidified, and applying a heat treatment to the cast article.

IPC 8 full level
B22C 9/10 (2006.01); **B22C 1/10** (2006.01); **B22C 1/22** (2006.01); **B22C 9/02** (2006.01); **B22D 29/00** (2006.01); **C22F 1/00** (2006.01); **C22F 1/04** (2006.01); **C22F 1/06** (2006.01)

CPC (source: EP US)
B22C 1/10 (2013.01 - EP US); **B22C 1/188** (2013.01 - EP US); **B22C 9/02** (2013.01 - EP US); **B22C 9/10** (2013.01 - EP US); **B22D 29/005** (2013.01 - EP US)

Cited by
DE102017131255A1; WO2019121637A1; CN111511482A; DE102007042506A1; DE102007042506B4; US11167344B2; WO2016201474A1; US11253913B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1721689 A1 20061115; **EP 1721689 A4 20070502**; **EP 1721689 B1 20110518**; AT E509714 T1 20110615; CN 1921969 A 20070228; CN 1921969 B 20150318; JP 3948490 B2 20070725; JP WO2005080023 A1 20071025; TW 200533436 A 20051016; US 2007137825 A1 20070621; WO 2005080023 A1 20050901

DOCDB simple family (application)
EP 05710586 A 20050223; AT 05710586 T 20050223; CN 200580005550 A 20050223; JP 2005002893 W 20050223; JP 2006510291 A 20050223; TW 94105370 A 20050223; US 59035405 A 20050223