

Title (en)

Ceramic casting mould part with various shrinking factors and casting methods

Title (de)

Keramisches Gussformteil mit verschiedenen Schrumpffaktoren und Gußverfahren

Title (fr)

Pièce de formage coulée en céramique dotée de différents facteurs de rétrécissement et procédé de coulée

Publication

**EP 2463043 A1 20120613 (DE)**

Application

**EP 10194151 A 20101208**

Priority

EP 10194151 A 20101208

Abstract (en)

The ceramic mold part (4) comprises two regions (7', 10'), and a cast shell, where a low-shrinkage region comprises a different material than the other region. The regions belong to a same layer when the layered mold part is formed. A mold core (19) corresponds with the regions. The matrix material of the low-shrinkage region comprises fibers, and corresponds to the matrix material of the other region. The mold part comprises a longitudinal direction (13') such as a solidification direction of a melt in a casting mold with the mold part, and the fibers run in the longitudinal direction. An independent claim is included for a method of producing a cast component.

Abstract (de)

Durch die Verwendung eines Materials mit unterschiedlichem Schrumpfverhalten, insbesondere durch Fasern (16), kann kontrolliert die Schrumpfung eines keramischen Gussformteils (4) eingestellt werden.

IPC 8 full level

**B22C 9/02** (2006.01); **B22C 9/04** (2006.01); **B22C 9/10** (2006.01); **B22C 9/24** (2006.01)

CPC (source: EP)

**B22C 9/02** (2013.01); **B22C 9/04** (2013.01); **B22C 9/103** (2013.01); **B22C 9/106** (2013.01); **B22C 9/24** (2013.01)

Citation (applicant)

- EP 1266706 A1 20021218 - SIEMENS AG [DE]
- EP 1204776 B1 20040602 - SIEMENS AG [DE], et al
- EP 1306454 A1 20030502 - SIEMENS AG [DE]
- EP 1319729 A1 20030618 - SIEMENS AG [DE]
- WO 9967435 A1 19991229 - SIEMENS AG [DE], et al
- WO 0044949 A1 20000803 - SIEMENS AG [DE], et al
- US 6024792 A 20000215 - KURZ WILFRIED [CH], et al
- EP 0892090 A1 19990120 - SULZER INNOTEC AG [CH]
- EP 0486489 B1 19941102 - SIEMENS AG [DE]
- EP 0786017 B1 19990324 - SIEMENS AG [DE]
- EP 0412397 B1 19980325 - SIEMENS AG [DE]
- EP 1306454 A1 20030502 - SIEMENS AG [DE]

Citation (search report)

- [XY] EP 0715913 A1 19960612 - HOWMET CORP [US]
- [Y] US 4989664 A 19910205 - ROTH HILTON A [US]
- [Y] US 3166808 A 19650126 - MOORE FRANCIS C
- [Y] EP 0899039 A2 19990303 - HOWMET RES CORP [US]
- [A] US 2005199366 A1 20050915 - VANDERMEER JOHN [US], et al

Cited by

EP3246108A1; US2017326635A1; US11389861B2; US10933466B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 2463043 A1 20120613**; WO 2012076253 A1 20120614

DOCDB simple family (application)

**EP 10194151 A 20101208**; EP 2011069085 W 20111031