

Title (en)

Foundry core with improved gutting properties II

Title (de)

Gießereikerne mit verbesserten Entkernungseigenschaften II

Title (fr)

Noyaux de fonderie dotés de propriétés de dénoyautage II améliorées

Publication

**EP 2193858 A1 20100609 (DE)**

Application

**EP 09175205 A 20091106**

Priority

DE 102008056842 A 20081112

Abstract (en)

The foundry core comprises sand such as quartz sand, aluminum oxide-based sand and/or mullite-based sand, organic binder or binder mixture, and hydrophobic aerogel granules such as oxidic aerogel granules, which have a grain size distribution in the order of magnitude of the sand. The sand and/or the aerogel granules have a grain size distribution of 0.1-0.9 mm. The aerogel granules have a grain size of  $\approx$  0.5 mm. The portion of aerogel granules is 8-12 vol.%. The portion of aerogel granules in the core is 0.13-0.19 wt.%. An independent claim is included for a method for producing a foundry core.

Abstract (de)

Die vorliegende Erfindung betrifft Gießereikerne mit verbesserten Entkernungseigenschaften, ein Verfahren zu ihrer Herstellung sowie ihre Verwendung. Die Gießereikerne enthaltend Sand, Bindemittel und hydrophobes Aerogelgranulat.

IPC 8 full level

**B22C 1/02** (2006.01); **B22C 1/16** (2006.01)

CPC (source: EP)

**B22C 1/183** (2013.01); **B22C 1/2253** (2013.01)

Citation (applicant)

- WO 9506617 A1 19950309 - BASF AG [DE], et al
- DE 102006003198 A1 20070726 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]
- K. E. HÖNER: "Ullmanns Encyklopädie der technischen Chemie", vol. 12, 1976, VERLAG CHEMIE, article "Gießereiwesen", pages: 271 - 287

Citation (search report)

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- [AD] DE 102006003198 A1 20070726 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]
- [A] WO 2005056643 A2 20050623 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE], et al
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- [A] EP 1852197 A1 20071107 - DEUTSCH ZENTR LUFT & RAUMFAHRT [DE]
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- [A] US 2002173554 A1 20021121 - BAUMANN THEODORE F [US], et al
- [A] LORENZ RATKE ET AL: "Mechanical properties of aerogel composites for casting purposes", JOURNAL OF MATERIALS SCIENCE, KLUWER ACADEMIC PUBLISHERS, BO, vol. 41, no. 4, 1 February 2006 (2006-02-01), pages 1019 - 1024, XP019211565, ISSN: 1573-4803
- [A] BRÜCK S ET AL: "RF-Aerogels: A New Binding Material for Foundry Application", JOURNAL OF SOL-GEL SCIENCE AND TECHNOLOGY, SPRINGER, NEW YORK, NY, US, vol. 26, 1 January 2003 (2003-01-01), pages 663 - 666, XP002442103, ISSN: 0928-0707

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Designated contracting state (EPC)

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 SE SI SK SM TR

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AL BA RS

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