

Title (en)

MOLD MATERIAL FOR CASTING AND COPPER ALLOY MATERIAL

Title (de)

FORMWERKSTOFF FÜR GUSS UND KUPFERLEGIERUNGSMATERIAL

Title (fr)

MATÉRIAUX DE MOULE POUR COULÉE ET MATÉRIAUX D'ALLIAGE DE CUIVRE

Publication

**EP 3715488 A1 20200930 (EN)**

Application

**EP 18881052 A 20180928**

Priority

- JP 2017223760 A 20171121
- JP 2018036324 W 20180928

Abstract (en)

A casting mold material used when casting a metal material includes, as a composition: Cr within a range of 0.3 mass% or more and 0.7 mass% or less; Zr within a range of 0.025 mass% or more and 0.15 mass% or less; Sn within a range of 0.005 mass% or more and 0.04 mass% or less; P within a range of 0.005 mass% or more and 0.03 mass% or less; and a balance consisting of Cu and inevitable impurities, in which a Zr content [Zr] (mass%) and a P content [P] (mass%) have a relationship of  $[Zr]/[P] \geq 5$ , and a Sn content [Sn] (mass%) and a P content [P] (mass%) have a relationship of  $[Sn]/[P] \leq 5$ .

IPC 8 full level

**C22C 9/00** (2006.01); **B22D 11/059** (2006.01); **C22F 1/00** (2006.01); **C22F 1/02** (2006.01); **C22F 1/08** (2006.01)

CPC (source: EP KR US)

**B22D 11/059** (2013.01 - EP KR US); **C22C 9/00** (2013.01 - EP KR US); **C22F 1/08** (2013.01 - EP KR US)

Designated contracting state (EPC)

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Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**US 2020215604 A1 20200709**; CN 111212923 A 20200529; CN 111212923 B 20211214; EP 3715488 A1 20200930; EP 3715488 A4 20210331; JP 2019094530 A 20190620; JP 7035478 B2 20220315; KR 102486303 B1 20230106; KR 20200087123 A 20200720; WO 2019102716 A1 20190531

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**US 201816648061 A 20180928**; CN 201880066982 A 20180928; EP 18881052 A 20180928; JP 2017223760 A 20171121; JP 2018036324 W 20180928; KR 20207008276 A 20180928