

## Title (en)

Method for metallic coating of a casting mould part and aluminized casting mould part produced according to the method

## Title (de)

Verfahren zur metallischen Beschichtung eines Gussformteiles und aluminisiertes Gussformteil hergestellt durch das Verfahren

## Title (fr)

Procédé de revêtement métallique d'une pièce de formage coulée et pièce de formage coulée fabriquée selon ce procédé

## Publication

**EP 2312011 A1 20110420 (DE)**

## Application

**EP 09173138 A 20091015**

## Priority

EP 09173138 A 20091015

## Abstract (en)

The method for metallic coating of a mold part, comprises mechanically and chemically cleaning the mold part by blast cleaning before the coating process and immersing the mold part into a melt of an aluminum-containing alloy for coating. After mechanical cleaning, the mold part is directly pretreated with an acid solution before coating process. The melt has a bath temperature of 650-800[deg] C. The immersion time is 2-6 minutes and the thickness of the coating is 50-500  $\mu$ m. The mold part before the coating process has a temperature between room temperature and 200[deg] C. The method for metallic coating of a mold part, comprises mechanically and chemically cleaning the mold part by blast cleaning before the coating process and immersing the mold part into a melt of an aluminum-containing alloy for coating. After mechanical cleaning, the mold part is directly pretreated with an acid solution before coating process. The melt has a bath temperature of 650-800[deg] C. The immersion time is 2-6 minutes and the thickness of the coating is 50-500  $\mu$ m. The mold part before the coating process has a temperature between room temperature and 200[deg] C and the mold part after the coating process has a temperature between 200[deg] C and the bath temperature. The mold part is subjected to a heat treatment in an oxidizing atmosphere after the coating process and then subjected to anodic oxidation. The mold part is colored after the anodic oxidation.

## Abstract (de)

Es wird ein Verfahren zur metallischen Beschichtung eines Gussformteiles vorgeschlagen, wobei das Gussformteil vor dem Beschichtungsvorgang mechanisch und chemisch gereinigt wird und wobei das Gussformteil zur Beschichtung in eine Schmelze einer aluminiumhaltigen Legierung eingetaucht wird.

## IPC 8 full level

**C23C 2/02** (2006.01); **C23C 2/12** (2006.01); **C23C 2/26** (2006.01); **C23C 2/28** (2006.01)

## CPC (source: EP US)

**C23C 2/024** (2022.08 - EP US); **C23C 2/12** (2013.01 - EP); **C23C 2/26** (2013.01 - EP US); **C23C 2/261** (2022.08 - EP US); **C23C 2/28** (2013.01 - EP US)

## Citation (applicant)

EP 0848076 A1 19980617 - LORRAINE LAMINAGE [FR]

## Citation (search report)

- [X] US 3617345 A 19711102 - BROWN MELVIN H, et al
- [X] US 3000755 A 19610919 - HANINK DEAN K, et al
- [A] EP 2017074 A2 20090121 - TI AUTOMOTIVE HEIDELBERG GMBH [DE]
- [A] US 2008318035 A1 20081225 - SEBRIGHT BETH ANN [US]
- [A] EP 1624093 A1 20060208 - ALUMINAL OBERFLAECHESTECHNIK [DE]
- [A] DE 1138603 B 19621025 - KAISER ALUMINIUM CHEM CORP
- [A] US 5853806 A 19981229 - HIGUCHI SEIJUN [JP], et al
- [A] EP 1525929 A1 20050427 - FISCHER GEORG FAHRZEUGTECH [CH]

## Cited by

WO2017182382A1; CN112746250A; CN102925945A; DE102016107152A1; DE102016107152B4; CN109477197A; US11339479B2

## 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

## DOCDB simple family (publication)

**EP 2312011 A1 20110420**

## DOCDB simple family (application)

**EP 09173138 A 20091015**