

Title (en)  
ADDITIVE MANUFACTURING POWDERS FOR USE IN ADDITIVE MANUFACTURING PROCESSES RESULTING IN IMPROVED STABILITY OF STEEL MELT-TRACK

Title (de)  
PULVER ZUR GENERATIVEN FERTIGUNG ZUR VERWENDUNG IN VERFAHREN ZUR GENERATIVEN FERTIGUNG ZUR VERBESSERUNG DER STABILITÄT VON STAHL SCHMELZRAUPEN

Title (fr)  
POUDRES DE FABRICATION ADDITIVE DESTINÉES À ÊTRE UTILISÉES DANS DES PROCESSUS DE FABRICATION ADDITIVE RÉSULTANT EN UNE STABILITÉ AMÉLIORÉE DE CANAL DE COULÉE D'ACIER

Publication  
**EP 4139071 A1 20230301 (EN)**

Application  
**EP 21719646 A 20210421**

Priority  
• EP 20171310 A 20200424  
• EP 2021060322 W 20210421

Abstract (en)  
[origin: EP3900856A1] The present invention relates to an additive manufacturing powder for use in additive manufacturing of three dimensional objects by means of a heat source, wherein the additive manufacturing powder comprises or consists of: a steel powder comprising steel powder particles, wherein the steel powder is selected from the group consisting of AISI 316 stainless steel powders, AISI 316L stainless steel powders, and combinations thereof; and a secondary powder comprising secondary powder particles, wherein the secondary powder is selected from the group consisting of elemental silicon powder, elemental molybdenum powder, elemental manganese powder, elemental chromium powder, elemental nickel powder and combinations thereof; wherein the secondary powder particles are bound to the surface of the steel powder particles. The present inventions also relates to the use of these powders as well as to methods for producing and using the same.

IPC 8 full level

**B22F 1/052** (2022.01); **B22F 1/16** (2022.01); **B22F 1/17** (2022.01); **B22F 10/00** (2021.01); **B22F 10/25** (2021.01); **B22F 10/28** (2021.01);  
**B33Y 10/00** (2015.01); **B33Y 70/00** (2015.01); **C22C 1/05** (2006.01); **C22C 33/02** (2006.01); **C22C 38/02** (2006.01); **C22C 38/44** (2006.01);  
**C22C 38/58** (2006.01)

CPC (source: EP US)

**B22F 1/052** (2022.01 - EP US); **B22F 1/16** (2022.01 - EP US); **B22F 1/17** (2022.01 - EP US); **B22F 10/14** (2021.01 - EP);  
**B22F 10/25** (2021.01 - EP); **B22F 10/28** (2021.01 - EP); **B22F 10/385** (2021.01 - EP); **B33Y 10/00** (2014.12 - EP US); **B33Y 70/00** (2014.12 - EP);  
**C22C 1/05** (2013.01 - EP); **C22C 33/0207** (2013.01 - EP); **C22C 33/0285** (2013.01 - EP); **C22C 38/02** (2013.01 - EP); **C22C 38/44** (2013.01 - EP);  
**C22C 38/58** (2013.01 - EP); **B22F 2303/20** (2013.01 - EP); **B22F 2304/05** (2013.01 - EP); **B22F 2304/10** (2013.01 - EP);  
**B22F 2999/00** (2013.01 - EP); **Y02P 10/25** (2015.11 - EP)

Citation (search report)

See references of WO 2021214106A1

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

Designated validation state (EPC)

KH MA MD TN

DOCDB simple family (publication)

**EP 3900856 A1 20211027**; EP 4139071 A1 20230301; WO 2021214106 A1 20211028

DOCDB simple family (application)

**EP 20171310 A 20200424**; EP 2021060322 W 20210421; EP 21719646 A 20210421