

Title (en)

WIRE ROD OF CU-ZN-SI ALLOY OBTAINED BY UP-DRAWING CONTINUOUS CASTING

Title (de)

WALZDRAHT AUS EINER CU-ZN-SI-LEGIERUNG, HERGESTELLT DURCH AUFZIEHEN EINES KONTINUIERLICHEN GUSSES

Title (fr)

FIL MACHINE EN ALLIAGE CU-ZN-SI OBTENU PAR COULÉE CONTINUE À ÉTIRAGE ASCENDANT

Publication

EP 4148154 A4 20240522 (EN)

Application

EP 21800018 A 20210507

Priority

- JP 2020082545 A 20200508
- JP 2021017533 W 20210507

Abstract (en)

[origin: EP4148154A1] A wire rod of a Cu-Zn-Si based alloy obtained by up-drawing continuous casting is provided; the amount of Cu is within a range of 75.0 mass% or more and 76.9 mass% or less, the amount of Si is within a range of 2.6 mass% or more and 3.1 mass% or less, the amount of Zr is within a range of 0.003 mass% or more and 0.20 mass% or less, the amount of P is within a range of 0.02 mass% or more and 0.15 mass% or less, the balance is composed of Zn and inevitable impurities, and the number density of a Zr-P compound containing Zr and P is within a range of 1500 pieces/mm² or more and 7000 pieces/mm² or less.

IPC 8 full level

C22C 9/04 (2006.01); **B22D 11/00** (2006.01); **B22D 11/041** (2006.01); **B22D 11/055** (2006.01); **B22D 11/14** (2006.01); **B22D 11/16** (2006.01)

CPC (source: EP US)

B22D 11/004 (2013.01 - EP US); **B22D 11/005** (2013.01 - US); **B22D 11/041** (2013.01 - EP); **B22D 11/055** (2013.01 - EP); **B22D 11/145** (2013.01 - EP); **B22D 11/16** (2013.01 - EP); **C22C 9/04** (2013.01 - EP US)

Citation (search report)

- [X] EP 1777305 A1 20070425 - SANBO SHINDO KOGYO KABUSHIKI K [JP]
- [A] JP H05169197 A 19930709 - NIPPON STEEL CORP
- [A] JP 2013104071 A 20130530 - MITSUBISHI SHINDO KK
- [A] US 2009016927 A1 20090115 - OISHI KEIICHIRO [JP]
- [A] JP 2013155407 A 20130815 - MITSUBISHI MATERIALS CORP
- See also references of WO 2021225165A1

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

DOCDB simple family (publication)

EP 4148154 A1 20230315; **EP 4148154 A4 20240522**; CN 115443343 A 20221206; JP 2021176983 A 20211111; JP 7347321 B2 20230920; US 2023160039 A1 20230525; WO 2021225165 A1 20211111

DOCDB simple family (application)

EP 21800018 A 20210507; CN 202180030928 A 20210507; JP 2020082545 A 20200508; JP 2021017533 W 20210507; US 202117921116 A 20210507