

Title (en)
WELDING ELECTRODE FOR SHEETS OF ALUMINIUM OR STEEL, AND METHOD FOR PRODUCING THE ELECTRODE

Title (de)
SCHWEISSELEKTRODE FÜR BLECHE AUS ALUMINIUM ODER STAHL UND VERFAHREN ZUR HERSTELLUNG DER ELEKTRODE

Title (fr)
ELECTRODE DE SOUDAGE POUR TÔLES EN ALUMINIUM OU ACIER ET PROCEDE D'OBTENTION DE L'ELECTRODE

Publication
EP 3743537 A1 20201202 (FR)

Application
EP 19704851 A 20190110

Priority
• FR 1850408 A 20180118
• FR 2019000007 W 20190118

Abstract (en)
[origin: CA3087845A1] The invention relates to an electrode for welding sheets of steel or aluminium, with a conductivity greater than or equal to 90% IACS and made of an alloy consisting, by weight based on the total weight of the alloy, of chromium in a proportion higher than or equal to 0.1% and lower than 0.4%, between 0.02 and 0.04% of zirconium, lower than 0.015% of phosphorus, the remainder being copper and less than 0.1% of unavoidable impurities, the electrode structure advantageously comprising incoherent chromium precipitates, more than 90% of which have a projected surface area of less than 1 μm^2 , the precipitates having a size of between 10 and 50 nm, the electrode having a fibre structure consisting of radial fibres having a thickness of less than 1 mm and a substantially central fibreless region that has a diameter of less than 5 mm. The invention also relates to a method for producing the electrode.

IPC 8 full level
C22F 1/08 (2006.01); **B22D 11/00** (2006.01); **B23K 35/02** (2006.01); **B23K 35/30** (2006.01); **B23K 35/40** (2006.01); **C22C 9/00** (2006.01)

CPC (source: EP KR US)
B22D 11/00 (2013.01 - EP KR); **B22D 11/004** (2013.01 - KR); **B23K 11/30** (2013.01 - KR US); **B23K 35/0255** (2013.01 - EP KR); **B23K 35/0261** (2013.01 - EP KR US); **B23K 35/302** (2013.01 - EP KR US); **B23K 35/40** (2013.01 - EP US); **B23K 35/406** (2013.01 - EP KR); **C22C 9/00** (2013.01 - EP); **C22F 1/08** (2013.01 - EP KR); **B22D 11/004** (2013.01 - EP)

Citation (search report)
See references of WO 2019141916A1

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

DOCDB simple family (publication)
FR 3076751 A1 20190719; **FR 3076751 B1 20201023**; CA 3087845 A1 20190725; CA 3087845 C 20221004; CN 111615565 A 20200901; CN 111615565 B 20220708; EP 3743537 A1 20201202; JP 2021511218 A 20210506; JP 7325446 B2 20230814; KR 20200106900 A 20200915; MX 2020007594 A 20201028; US 2023141080 A1 20230511; WO 2019141916 A1 20190725; WO 2019141916 A8 20200625

DOCDB simple family (application)
FR 1850408 A 20180118; CA 3087845 A 20190118; CN 201980008979 A 20190118; EP 19704851 A 20190110; FR 2019000007 W 20190118; JP 2020560603 A 20190118; KR 20207020634 A 20190118; MX 2020007594 A 20190118; US 201916962979 A 20190110