

Title (en)

COOLING FACILITY AND METHOD

Title (de)

KÜHLEINRICHTUNG UND -VERFAHREN

Title (fr)

PROCÉDÉ ET ÉQUIPEMENT DE REFROIDISSEMENT

Publication

**EP 3398696 A1 20181107 (FR)**

Application

**EP 18159076 A 20150710**

Previously filed application

PCT/FR2015/051915 20150710 WO

Priority

- FR 1401679 A 20140723
- EP 15753101 A 20150710
- FR 2015051915 W 20150710

Abstract (en)

[origin: WO2016012691A1] The invention relates to a method for cooling a sheet ingot made of an aluminium alloy, after the heat treatment for the metallurgical homogenisation of said ingot and before the hot-rolling thereof, characterised in that the cooling, representing a value of between 30 and 150°C, is carried out at a speed of between 150 and 500°C/h, with a homogeneity of less than 40°C over all of the treated part of the ingot. The invention also relates to the facility allowing the implementation of said method and to said implementation.

Abstract (fr)

L'invention a pour objet un procédé de refroidissement d'un plateau de laminage en alliage d'aluminium, après le traitement thermique d'homogénéisation métallurgique dudit plateau et avant son laminage à chaud, caractérisé en ce que le refroidissement d'une valeur de 30 à 150°C est effectué à une vitesse 150 à 500°C/h, avec une homogénéité de moins de 40°C sur toute la partie traitée du plateau. L'invention a également pour objet l'installation permettant la mise en oeuvre dudit procédé ainsi que ladite mise en oeuvre.

IPC 8 full level

**B21B 37/74** (2006.01); **C21D 11/00** (2006.01); **C22F 1/04** (2006.01)

CPC (source: CN EP RU US)

**B21B 37/74** (2013.01 - CN EP RU US); **B21B 45/004** (2013.01 - EP US); **B21B 45/0218** (2013.01 - EP US); **C21D 1/667** (2013.01 - CN EP US); **C21D 11/00** (2013.01 - RU); **C21D 11/005** (2013.01 - CN EP US); **C22F 1/002** (2013.01 - EP US); **C22F 1/04** (2013.01 - CN EP RU US); **B21B 45/004** (2013.01 - CN); **B21B 45/0218** (2013.01 - CN); **B21B 2001/225** (2013.01 - CN EP US); **B21B 2003/001** (2013.01 - CN EP US); **B21B 2045/0212** (2013.01 - CN EP US); **B21B 2261/04** (2013.01 - CN EP US); **B21B 2261/06** (2013.01 - CN EP US); **B21B 2261/12** (2013.01 - CN EP US); **B21B 2261/20** (2013.01 - CN EP US)

Citation (search report)

- [A] DE 19823790 A1 19991202 - VAW VER ALUMINIUM WERKE AG [DE]
- [A] EP 2656932 A1 20131030 - SIEMENS AG [DE]
- [A] JP S60243226 A 19851203 - KAWASAKI STEEL CO

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)

**WO 2016012691 A1 20160128**; BR 112017000205 A2 20171031; BR 112017000205 B1 20230314; CA 2954711 A1 20160128; CA 2954711 C 20230404; CN 106661648 A 20170510; CN 106661648 B 20200107; DE 15753101 T1 20170727; EP 3171996 A1 20170531; EP 3171996 B1 20180411; EP 3398696 A1 20181107; EP 3398696 B1 20210512; FR 3024058 A1 20160129; FR 3024058 B1 20160715; JP 2017521260 A 20170803; JP 6585155 B2 20191002; KR 102336948 B1 20211209; KR 20170039166 A 20170410; MX 2017000483 A 20170728; RU 2017105464 A 20180827; RU 2017105464 A3 20181129; RU 2676272 C2 20181227; SA 517380746 B1 20210415; TW 201622843 A 20160701; TW I593476 B 20170801; US 10130980 B2 20181120; US 2017189949 A1 20170706; US 2018236514 A1 20180823

DOCDB simple family (application)

**FR 2015051915 W 20150710**; BR 112017000205 A 20150710; CA 2954711 A 20150710; CN 201580040948 A 20150710; DE 15753101 T 20150710; EP 15753101 A 20150710; EP 18159076 A 20150710; FR 1401679 A 20140723; JP 2017503588 A 20150710; KR 20177002831 A 20150710; MX 2017000483 A 20150710; RU 2017105464 A 20150710; SA 517380746 A 20170119; TW 104123584 A 20150721; US 201515326753 A 20150710; US 201815962657 A 20180425