

Title (en)

METHOD FOR MANUFACTURING A GALVANIZED STEEL SHEET

Title (de)

HERSTELLUNGSVERFAHREN FÜR EIN GALVANISIERTES STAHLBLECH

Title (fr)

PROCÉDÉ DE PRODUCTION D'UNE TÔLE D'ACIER GALVANISÉ

Publication

EP 2366812 A1 20110921 (EN)

Application

EP 09833249 A 20090422

Priority

- JP 2009058426 W 20090422
- JP 2008319131 A 20081216

Abstract (en)

A method for manufacturing a galvanized steel sheet, includes: galvanizing a steel sheet; bringing the surface of the steel sheet into contact with an aqueous solution containing zinc ion in the range of 5 to 100 g/l as the zinc ion concentration, having a pH of 4 to 6, and having a liquid temperature of 20 to 70°C, holding the steel sheet for 1 to 60 seconds; and then washing and drying the steel sheet. The solution containing zinc is preferably one containing zinc sulfate, for example. According to the method described above, a galvanized steel sheet having an oxide layer having an average thickness of 10 nm or more and mainly containing zinc formed on the surface of the steel sheet and having excellent press formability can be stably manufactured in a short time.

IPC 8 full level

C23C 2/06 (2006.01); **C23C 2/26** (2006.01); **C23C 2/40** (2006.01); **C23C 18/12** (2006.01); **C23C 22/53** (2006.01); **C23C 28/00** (2006.01)

CPC (source: EP KR US)

C23C 2/06 (2013.01 - EP); **C23C 2/26** (2013.01 - EP KR US); **C23C 2/40** (2013.01 - EP); **C23C 18/1216** (2013.01 - EP); **C23C 18/1241** (2013.01 - EP); **C23C 22/53** (2013.01 - EP KR); **C23C 28/00** (2013.01 - KR); **C23C 28/3225** (2013.01 - EP); **C23C 28/345** (2013.01 - EP)

Cited by

RU2755907C1; RU2755906C1; US11319631B2; US11319633B2; EP2683848B1; WO2019073273A1; WO2019073319A1; WO2019073320A1; WO2019073274A1

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 TR

DOCDB simple family (publication)

WO 2010070942 A1 20100624; CA 2742354 A1 20100624; CA 2742354 C 20140225; CN 102216493 A 20111012; EP 2366812 A1 20110921; EP 2366812 A4 20120425; EP 2366812 B1 20190814; KR 20110073573 A 20110629; TW 201024461 A 20100701; TW I516638 B 20160111

DOCDB simple family (application)

JP 2009058426 W 20090422; CA 2742354 A 20090422; CN 200980145492 A 20090422; EP 09833249 A 20090422; KR 20117010906 A 20090422; TW 98113978 A 20090428