

Title (en)

MICROCRACK-REDUCED, HOT PRESS-FORMED ARTICLE, AND METHOD FOR MANUFACTURING SAME

Title (de)

HEISSPRESSFORMTEIL MIT REDUZIERTER MIKRORISSBILDUNG UND VERFAHREN ZUR HERSTELLUNG DAVON

Title (fr)

ARTICLE À MICRO-FISSURATION RÉDUITE FORMÉ PAR COMPRESSION À CHAUD, ET SON PROCÉDÉ DE FABRICATION

Publication

EP 3396006 A1 20181031 (EN)

Application

EP 16879309 A 20161221

Priority

- KR 20150186107 A 20151224
- KR 2016014963 W 20161221

Abstract (en)

Disclosed are a hot press-formed article and a method for manufacturing the same. The article is manufactured by hot press forming a galvanized steel sheet comprising a base steel plate and a zinc-based coat layer formed on a surface of the base steel plate, wherein the zinc-based coat layer contains at least one element selected from the group consisting of Sb, Sn and Bi in a total amount of 0.05% to 2.0% by weight, and the balanced amount of Zn and inevitable impurities, at least 70% by weight of the at least one element selected from the group consisting of Sb, Sn and Bi being concentrated in a region 3µm or less distant from the surface of an alloyed zinc-based coat layer, formed by alloying the zinc-based coat layer, of the hot press-formed article.

IPC 8 full level

C23C 2/06 (2006.01); **B21D 22/02** (2006.01); **B21D 22/20** (2006.01); **C23C 2/40** (2006.01)

CPC (source: EP US)

B21D 22/02 (2013.01 - EP US); **B21D 22/20** (2013.01 - EP US); **C21D 1/673** (2013.01 - EP US); **C21D 8/005** (2013.01 - EP US); **C23C 2/06** (2013.01 - EP US); **C23C 2/261** (2022.08 - EP US); **C23C 2/29** (2022.08 - EP US); **C23C 2/40** (2013.01 - EP US); **B21D 22/022** (2013.01 - US)

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)

EP 3396006 A1 20181031; **EP 3396006 A4 20181107**; **EP 3396006 B1 20191120**; CN 108431286 A 20180821; CN 108431286 B 20200320; JP 2019508575 A 20190328; JP 6661772 B2 20200311; KR 101726094 B1 20170412; US 2019003031 A1 20190103; US 2024082902 A1 20240314; WO 2017111442 A1 20170629

DOCDB simple family (application)

EP 16879309 A 20161221; CN 201680075864 A 20161221; JP 2018532709 A 20161221; KR 20150186107 A 20151224; KR 2016014963 W 20161221; US 201616064785 A 20161221; US 202318385162 A 20231030