

Title (en)
COATED METAL SHEET, METHOD TO PROVIDE SUCH A COATED METAL SHEET, AND HOT DIP GALVANIZING DEVICE TO MANUFACTURE SUCH A COATED METAL SHEET

Title (de)
BESCHICHTETES METALLBLECH, VERFAHREN ZUR BEREITSTELLUNG SOLCH EINES BESCHICHTETES METALLBLECHS UND FEUERVERZINKUNGSVORRICHTUNG ZUR HERSTELLUNG SOLCH EINES BESCHICHTETES METALLBLECHS

Title (fr)
FEUILLE DE MÉTAL REVÊTUE, PROCÉDÉ POUR PRODUIRE UNE TELLE FEUILLE DE MÉTAL REVÊTUE ET DISPOSITIF DE GALVANISATION PAR IMMERSION À CHAUD POUR LA FABRICATION D'UNE TELLE FEUILLE DE MÉTAL REVÊTUE

Publication
EP 3382054 A1 20181003 (EN)

Application
EP 17163994 A 20170330

Priority
EP 17163994 A 20170330

Abstract (en)
Method of providing a coating on a metal sheet, wherein a cold rolled metal sheet is subjected to a hot dip galvanizing operation to provide a metal coating on the metal sheet, which hot dip galvanizing operation comprises guiding the metal sheet through a liquid bath of the metal coating with at least one stabilization roll provided at a predefined depth ('Depth') below surface level of the liquid bath, and wiping the metal coating that is provided on the metal sheet with at least one gas knife having an outlet to project wiping gas on the metal coating on the metal sheet that passes along the gas knife, wherein a distance ('D') of the at least one gas knife to the passing metal sheet and a height ('H') of the at least one gas knife above the liquid bath of the metal coating are selected at values so as to satisfy a formula $Wsa \leq 0.0016 * X + 0.1395$, wherein $X = D * \ln(H * Depth)$ and wherein Wsa is selected at a value representing a maximum allowable waviness.

IPC 8 full level
C23C 2/18 (2006.01); **C23C 2/00** (2006.01); **C23C 2/02** (2006.01); **C23C 2/20** (2006.01)

CPC (source: EP US)
C23C 2/00344 (2022.08 - EP US); **C23C 2/02** (2013.01 - EP US); **C23C 2/022** (2022.08 - EP US); **C23C 2/024** (2022.08 - EP US); **C23C 2/20** (2013.01 - EP)

Citation (applicant)
GB 2517622 A 20150225 - ARCELORMITTAL INVESTIGACION Y DESARROLLO SL [ES]

Citation (search report)

- [A] WO 9402658 A1 19940203 - DUMA MASCH ANLAGENBAU [DE], et al
- [AD] GB 2517622 A 20150225 - ARCELORMITTAL INVESTIGACION Y DESARROLLO SL [ES]
- [X] EP 1327697 A1 20030716 - NIPPON KOKAN KK [JP]
- [A] DEUTSCHER O: "Characterising the surface waviness of hot dip galvanised steel sheets for optical high-quality paintability (Carsteel)", 1 January 2009 (2009-01-01), pages 1 - 133, XP002717503, Retrieved from the Internet <URL:http://bookshop.europa.eu/is-bin/INTERSHOP.enfinity/WFS/EU-Bookshop-Site/en_GB/-/EUR/ViewPublication-Start?PublicationKey=KINA23854> [retrieved on 20131202], DOI: 10.2777/65928
- [AD] "SEP 1941:2012-05: Messung des Welligkeitskennwertes Wsa(1-5) an kaltgewalzten Flacherzeugnissen", 1 June 2012, DEUTSCHE INDUSTRY NORM, XP009195399

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WO2020069734A1

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 3382054 A1 20181003

DOCDB simple family (application)
EP 17163994 A 20170330