

Title (en)

Method and device for creating a conversion layer

Title (de)

Verfahren und Vorrichtung zum Erzeugen einer Konversionsschicht

Title (fr)

Procédé et dispositif destinés à la production d'une couche de conversion

Publication

**EP 2055809 A3 20120125 (DE)**

Application

**EP 08105723 A 20081103**

Priority

DE 102007052770 A 20071102

Abstract (en)

[origin: EP2055809A2] The method for the production of conversion layer on a surface of a substrate consisting of aluminum or aluminum alloy, comprises supplying a fluid conversion medium (2) from a media base (6) to an atomizer (8, 8'), where the fluid conversion medium is led from the media base to a dosing unit (14, 14') and from the dosing unit in dosing quantity to the atomizer, spraying the fluid conversion medium in fine droplet, applying an electric power between the atomizer and the surface of the substrate by a power supply unit, and spraying a spray mist on both sides of the substrate. The method for the production of conversion layer on a surface of a substrate consisting of aluminum or aluminum alloy, comprises supplying a fluid conversion medium (2) from a media base (6) to an atomizer (8, 8'), where the fluid conversion medium is led from the media base to a dosing unit (14, 14') and from the dosing unit in dosing quantity to the atomizer, spraying the fluid conversion medium in fine droplet, applying an electric power between the atomizer and the surface of the substrate by a power supply unit, and spraying a spray mist consisting of the fluid conversion medium on both sides of the substrate, so that the conversion medium with the substrate is chemically reacted and forms a conversion layer. The substrate is formed as band. The electric power is applied on the atomizer, on the dosing unit, on the media base electrically connected with the atomizer and/or on a fluid line (10) electrically connected with the atomizer. The substrate is grounded over a strip roller. The quantity of the conversion medium sprayed on the surface of the substrate is monitored. An independent claim is included for a device for applying a conversion medium on a surface of a substrate.

IPC 8 full level

**C25D 11/04** (2006.01); **B05B 5/14** (2006.01); **C23C 22/76** (2006.01); **C25D 17/00** (2006.01)

CPC (source: EP)

**B05B 5/14** (2013.01); **C23C 22/76** (2013.01); **C25D 11/005** (2013.01); **C25D 11/04** (2013.01); **B05B 12/126** (2013.01); **B05C 9/04** (2013.01)

Citation (search report)

- [XII] DE 2623604 A1 19761223 - METALLGESELLSCHAFT AG
- [XII] DE 2151046 A1 19720420 - BRITISH STEEL CORP

Cited by

EP2826887A1; EP4268970A1; WO2013139811A1

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 MT NL NO PL PT RO SE SI SK TR

Designated extension state (EPC)

AL BA MK RS

DOCDB simple family (publication)

**EP 2055809 A2 20090506**; **EP 2055809 A3 20120125**; **EP 2055809 B1 20140514**; DE 102007052770 A1 20090507

DOCDB simple family (application)

**EP 08105723 A 20081103**; DE 102007052770 A 20071102