

Title (en)

METHOD AND PRINTING MACHINE FOR PRINTING A METAL PRINTABLE MATERIAL

Title (de)

VERFAHREN UND DRUCKMASCHINE JEWELLS ZUM BEDRUCKEN EINES METALLISCHEN BEDRUCKSTOFFES

Title (fr)

PROCÉDÉ ET MACHINE À IMPRIMER RESPECTIVEMENT POUR L'IMPRESSION D'UN SUPPORT D'IMPRESSION MÉTALLIQUE

Publication

**EP 3917780 A1 20211208 (DE)**

Application

**EP 20700590 A 20200113**

Priority

- DE 102019101997 A 20190128
- EP 2020050689 W 20200113

Abstract (en)

[origin: WO2020156790A1] The invention relates to a method for printing a metal printable material (02) by means of a printing machine (01), wherein: a printing ink and/or a lacquer is/are each applied to a surface of the metal printable material (02) in the printing machine (01); the surface of the metal printable material (02) is pretreated in a plasma pretreatment device (13) in the printing machine (01) before being printed with the printing ink or with the lacquer; the printing ink and/or the lacquer is/are each applied directly to a surface of the metal printable material (02), which surface is passivated with chromium, or chrome-plated; and the chromiferous surface of the metal printable material (02) is irradiated with an ionised process gas in the plasma pretreatment device (13) under atmospheric pressure. Also described is a printing machine for carrying out the aforementioned method.

IPC 8 full level

**B41F 7/16** (2006.01); **B05D 3/06** (2006.01); **B08B 7/00** (2006.01); **B41F 17/00** (2006.01); **B41M 5/00** (2006.01); **C23G 5/00** (2006.01);  
**H05H 1/34** (2006.01)

CPC (source: EP)

**B05D 3/102** (2013.01); **B05D 3/142** (2013.01); **B05D 5/04** (2013.01); **B05D 7/14** (2013.01); **B41F 7/16** (2013.01); **B41F 17/00** (2013.01);  
**B41J 11/0015** (2013.01); **B41M 1/28** (2013.01); **B41M 5/0011** (2013.01); **B05D 3/067** (2013.01); **B05D 2202/00** (2013.01);  
**B05D 2202/30** (2013.01); **B05D 2350/20** (2013.01); **B41M 7/0081** (2013.01)

Citation (search report)

See references of WO 2020156790A1

Cited by

EP4137239A4

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)

**DE 102019101997 A1 20200730**; EP 3917780 A1 20211208; EP 3917780 B1 20221012; ES 2934174 T3 20230217;  
WO 2020156790 A1 20200806

DOCDB simple family (application)

**DE 102019101997 A 20190128**; EP 2020050689 W 20200113; EP 20700590 A 20200113; ES 20700590 T 20200113