

Title (en)
METHOD AND DEVICE FOR PRODUCING METAL PATTERNS ON A SUBSTRATE FOR DECORATIVE AND/OR FUNCTIONAL PURPOSES,
MANUFACTURE OF OBJECTS INCORPORATING SAID PRODUCTION AND SET OF CONSUMABLES USED

Title (de)
VERFAHREN UND VORRICHTUNG ZUR HERSTELLUNG VON METALLMUSTERN AUF EINEM SUBSTRAT FÜR DEKORATIVEN UND/
ODER FUNKTIONALE ZWECKE, HERSTELLUNG VON GEGENSTÄNDEN MIT DIESER HERSTELLUNG UND VERWENDETES SET AN
VERBRAUCHSMITTELEN

Title (fr)
PROCÉDÉ ET DISPOSITIF DE RÉALISATION DE MOTIFS MÉTALLIQUES SUR UN SUBSTRAT A DES FINS DÉCORATIVES ET/OU
FONCTIONNELLES FABRICATION D'OBJETS INTÉGRANT CETTE RÉALISATION ET ENSEMBLE DE CONSOMMABLES UTILISÉS

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Abstract (en)
[origin: WO2016128695A1] The aim of the invention is to provide a method for producing metal patterns capable of being fine, accurate and complex on any type of substrate, that is easy to carry out on an industrial scale, can be automated and is easy to implement. For this purpose, the method according to the invention is characterised in that it comprises the following essential steps; A. optionally preparing the surface of the substrate intended to receive the metal patterns; B. depositing a temporary protection on the surface of the substrate corresponding to the negative of the patterns to be produced by means of a screen printing mask/stencil of which the cut-outs correspond to the negative of the patterns to be produced; and/or by direct printing, preferably by ink jet; C. optionally activating the surface of the substrate, in particular the areas corresponding to the patterns to be produced; D. metallising by depositing at least one metal on the areas corresponding to the patterns to be produced; E. eliminating the temporary protection from step B; F. optionally rinsing the surface of the substrate carrying the metal patterns; G. optionally drying the surface of the substrate carrying the metal patterns; H. optionally applying a finishing treatment to the surface of the substrate carrying the metal patterns; and in that step E of eliminating the temporary protection is carried out during step D, or at least partly during step D, and/or after step D, or at least partly during and/or after metallisation step D and partly before metallisation step D. The methods for producing decorative objects or functional objects such as printed circuits, integrated circuits, RFID chips, electronic reader-readable encoding pictograms, etc. incorporating this production of metal patterns, are also part of the invention, in addition to the sets of consumables used to implement said production.

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