Title (en)

METHOD AND INSTALLATION FOR ELECTROLYTIC TINNING OF A CONTINUOUSLY RUNNING STEEL STRIP IN AN ELECTRODEPOSITION UNIT

Title (de)

VERFAHREN UND VORRICHTUNG ZUR ELEKTROLYTISCHEN VERZINNUNG EINES SICH KONTINUIERLICH BEWEGENDEN STAHLBANDS IN EINER VORRICHTUNG ZUR ELEKTROLYTISCHEN ABSCHEIDUNG

Title (fr)

METHODE ET INSTALLATION D'ETAMAGE ELECTROLYTIQUE D'UNE BANDE D'ACIER EN DEFILEMENT CONTINU DANS UNE UNITE D'ELECTRODEPOSITION

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Application

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Abstract (en)

[origin: WO2010043774A1] Method and installation for electrolytic tinning of a continuously running steel strip in an electrodeposition unit. The present invention describes a method for the electrolytic tinning of a continuously running steel strip (1) in an electrodeposition unit (3) with an insoluble anode (23) in an electrolyte and having, in line, an electrodissolution reactor (6) intended to recharge the electrolyte with tin ions by selective separation through an electrodialysis or electrolysis membrane (10) which divides said electrodissolution reactor (6) into an anodic compartment (6b) comprising a first electrode (122b) connected to the positive terminal of an electric current supply circuit (12) and a cathodic compartment (6a) comprising a second electrode (121a) connected to the negative terminal of the same electric circuit, and for which a control member of the electrodissolution reactor engages a first change in the polarity of the electric current supply of each of the two electrodes, the control member ensuring, in a manner adjoining the first change, a second change of the circulation of the electrolyte between each of the two compartments of the electrodissolution reactor and the electrodeposition unit, the adjoining and periodic changes in the polarity of the electric current supply of the electrodissolution unit and of the circulation of the electrolyte returning to the electrodeposition unit ensure a continuous withdrawal of the electrolyte via alternating cycles from one or the other of the two compartments by attributing to said compartment an anodic electrodissolution function by means of a soluble electrode, two alternating cycles of continuous withdrawal are defined by similar durations. An installation that implements this electrolytic tinning method is also presented. A major objective of the invention is for the continuity in the recharging of the electrolyte to be effectively ensured.

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