

Title (en)

Method for passivation of coated metal sheets and apparatus thereof

Title (de)

Verfahren zur Passivierung der Oberflächen von beschichteten Metallbändern und Vorrichtung für das Aufbringen der Passivschicht auf ein metallisch beschichtetes Stahlband

Title (fr)

Méthode de passivation de bandes métalliques revêtus et l'appareil utilisé par cette méthode

Publication

EP 1767665 A3 20080716 (DE)

Application

EP 06016796 A 20060811

Priority

DE 102005045034 A 20050921

Abstract (en)

[origin: EP1767665A2] Surface of metal bands covered with a coating is passivated by moving tin-coated steel bands at a band speed through a coating installation, and spraying an aqueous solution of a surface active substance on the coated metal band moving at the band speed. The coated metal band is dried after squeezing the surface active substance. A thin film of the surface active substance is present with an overlay of 2-10 mg/m². Independent claims are included for: (1) a device for the application of a metallic coating on a steel band, particularly a band tin-coating installation, comprising an application device for electrolytic application of a thin tin layer on the steel band, and a passivation device (2) for the passivation of the metal layer; and (2) a method of using a substance during the manufacture of tin-coated steel bands, comprising providing the substance containing a polymer having a chemical composition of polymethyl siloxane with polyether lateral chains, a refractive index of 1.456-1.466, and a density at 20[deg]C. of 1.09-1.13 g/cm³; a polymer having a chemical composition of an acidic polyether with a density of 1.20-1.30 g/cm³ and an acid index of 270-310 mg potassium hydroxide/g; or a polymer containing 0-80 (5-80) mol.% monomer(s) of formula (1), 0-70 mol.% monomer(s) of formula C(R⁵)(R⁶)=C(R⁷)(C(OR⁸)=O), 5-50 mol.% monomer(s) containing a heterocyclic group with at least one basic ring nitrogen atom or to which such a heterocyclic group is attached after polymerization, 0-10 mol.% monomer(s) containing group(s) reactive for crosslinking or coupling, or 0-20 mol.% monomer(s) that do not fall into the above groups where the quantity of the monomers in the first group together with monomers containing acrylate group is at least 20 mol.% as well as their organic salts; and spraying the substance as an aqueous solution on the tin-coated steel bands. R¹-R⁴H or alkyl; R⁵-R⁷H or alkyl; and R⁸ optionally substituted alkyl, where the alkyl can be interrupted by -O groups. [Image].

IPC 8 full level

B05D 7/16 (2006.01); **B05D 7/14** (2006.01); **C23C 22/00** (2006.01); **C23C 22/76** (2006.01)

CPC (source: EP KR US)

C23C 22/00 (2013.01 - EP US); **C23C 22/76** (2013.01 - EP US); **C23F 11/00** (2013.01 - KR); **C25D 5/48** (2013.01 - EP US)

Citation (search report)

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