

Title (en)

COATING STRIP MATERIAL WITH PROTECTIVE/DECORATIVE LAYERS WHILE AVOIDING USE OF SOLVENTS

Title (de)

LÖSUNGSMITTELFREIES-BESCHICHTEN VON MATERIALBAHNEN MIT SCHUTZ-UND DEKORSCHICHTEN

Title (fr)

ENDUCTION DE BANDES DE METAL AVEC DES COUCHES PROTECTRICES/DECORATIVES SANS DISSOLVANTS

Publication

EP 0793539 A1 19970910 (EN)

Application

EP 95937745 A 19951123

Priority

- CA 9500659 W 19951123
- US 34456294 A 19941123

Abstract (en)

[origin: WO9615858A1] A process and apparatus for coating a surface of an elongated strip article, e.g. aluminum sheet, with a layer of solid polymer material. The process involves heating the polymer to produce a melt having a viscosity of at least 1000 centipoise when measured according to ASTM D4440 at 1 radian per second, extruding the melt onto a moving surface of the strip article through an elongated slot in a coating head having an extended surface adjacent to the slot arranged at an angle to the moving surface to form a coating gap converging in the direction of movement, thereby forming a coating on the strip article, and pushing the coating head towards the surface of the strip article as the melt is extruded as the coating onto the surface from the slot to reduce the coating thickness to a desired range by pressing the extended surface of the coating head onto the coating as the coating is formed. The apparatus includes coating heat, provided with a heater to maintain the viscosity of the melt, and load application device for the coating head, as well as means for melting the polymer and supplying the melt under pressure and at the desired temperature to the coating head. The process and apparatus allows strip articles to be coated with thin (1-100 microns) coatings of polymer materials without employing liquids as solvents or the like that cause atmospheric pollution problems.

IPC 1-7

B05C 5/02; **B05C 9/04**; **B05C 11/10**

IPC 8 full level

B05D 1/26 (2006.01); **B05C 5/00** (2006.01); **B05C 5/02** (2006.01); **B05C 9/04** (2006.01); **B05C 11/10** (2006.01); **B05D 7/14** (2006.01); **B05D 7/24** (2006.01)

CPC (source: EP)

B05C 5/001 (2013.01); **B05C 5/0254** (2013.01); **B05C 5/0295** (2013.01); **B05C 9/04** (2013.01); **B05C 11/1042** (2013.01)

Citation (search report)

See references of WO 9615858A1

Designated contracting state (EPC)

CH DE ES FR GB IT LI

DOCDB simple family (publication)

WO 9615858 A1 19960530; BR 9509757 A 19971125; CA 2205833 A1 19960530; CA 2205833 C 20010123; DE 69510560 D1 19990805; DE 69510560 T2 19991021; EP 0793539 A1 19970910; EP 0793539 B1 19990630; ES 2135103 T3 19991016; JP H10509638 A 19980922

DOCDB simple family (application)

CA 9500659 W 19951123; BR 9509757 A 19951123; CA 2205833 A 19951123; DE 69510560 T 19951123; EP 95937745 A 19951123; ES 95937745 T 19951123; JP 51640795 A 19951123