

Title (en)
CHROMIUM-CHROMIUM OXIDE COATINGS APPLIED TO STEEL SUBSTRATES FOR PACKAGING APPLICATIONS AND A METHOD FOR PRODUCING SAID COATINGS

Title (de)
AUF STAHLSUBSTRATE FÜR VERPACKUNGSANWENDUNGEN ANGEWANDTE CHROM-CHROMOXID-BESCHICHTUNGEN UND VERFAHREN ZUR HERSTELLUNG BESAGTER BESCHICHTUNGEN

Title (fr)
REVÊTEMENTS DE CHROME ET D'OXYDE DE CHROME APPLIQUÉS À DES SUBSTRATS EN ACIER POUR DES APPLICATIONS DE CONDITIONNEMENT ET PROCÉDÉ PERMETTANT DE PRODUIRE LESDITS REVÊTEMENTS

Publication
EP 2922983 B1 20190220 (EN)

Application
EP 13794902 A 20131121

Priority
• EP 12193623 A 20121121
• EP 12195261 A 20121203
• EP 2013074339 W 20131121
• EP 13794902 A 20131121

Abstract (en)
[origin: WO2014079909A1] The invention relates to a coated steel substrate for packaging applications, said substrate containing i). a conventional non-passivated electrolytic, optionally flowmelted, tinplate, or ii). a cold-rolled and recovery annealed electrolytic, optionally flowmelted, tinplate, characterised in that one or both sides of the substrate is coated with a chromium metal - chromium oxide coating layer produced in a single process step by using a trivalent chromium electroplating process, and to a process for obtaining said coated steel substrate.

IPC 8 full level
C25D 3/06 (2006.01); **C25D 5/34** (2006.01); **C25D 5/36** (2006.01); **C25D 5/48** (2006.01); **C25D 7/06** (2006.01); **C25D 9/08** (2006.01); **C25D 9/10** (2006.01)

CPC (source: EP RU US)
C25D 3/04 (2013.01 - US); **C25D 3/06** (2013.01 - EP RU US); **C25D 5/34** (2013.01 - EP US); **C25D 5/36** (2013.01 - EP US); **C25D 5/48** (2013.01 - EP RU US); **C25D 7/0614** (2013.01 - EP US); **C25D 9/08** (2013.01 - EP US); **C25D 9/10** (2013.01 - EP US); **C25D 11/38** (2013.01 - RU US); **Y10T 428/12569** (2015.01 - EP US)

Citation (examination)
• US 3679554 A 19720725 - YAMAGISHI HIDEHISA, et al
• US 3785940 A 19740115 - YAMAGISHI H, et al

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

DOCDB simple family (publication)
WO 2014079909 A1 20140530; BR 112015011465 A2 20170711; BR 112015011465 B1 20210727; BR 112015011731 A2 20170711; BR 112015011731 A8 20191008; BR 112015011731 B1 20211019; CA 2891605 A1 20140530; CA 2891605 C 20170103; CA 2892114 A1 20140530; CA 2892114 C 20170228; CN 104919091 A 20150916; CN 105102685 A 20151125; EP 2922983 A1 20150930; EP 2922983 B1 20190220; EP 2922984 A1 20150930; EP 2922984 B1 20181114; ES 2703595 T3 20190311; ES 2716565 T3 20190613; JP 2016501985 A 20160121; JP 2016505708 A 20160225; JP 6407879 B2 20181017; JP 6407880 B2 20181017; KR 20150085038 A 20150722; KR 20150088288 A 20150731; MX 2015006287 A 20151208; MX 2015006372 A 20160311; RS 58266 B1 20190329; RS 58504 B1 20190430; RU 2015123743 A 20170110; RU 2015123743 A3 20180427; RU 2015124017 A 20170110; RU 2015124017 A3 20180529; RU 2655405 C2 20180528; RU 2660478 C2 20180706; US 2015329981 A1 20151119; US 2015337448 A1 20151126; WO 2014079910 A1 20140530; WO 2014079911 A2 20140530; WO 2014079911 A3 20150402; ZA 201503508 B 20161130; ZA 201504168 B 20160928

DOCDB simple family (application)
EP 2013074337 W 20131121; BR 112015011465 A 20131121; BR 112015011731 A 20131121; CA 2891605 A 20131121; CA 2892114 A 20131121; CN 201380068653 A 20131121; CN 201380068666 A 20131121; EP 13794902 A 20131121; EP 13798613 A 20131121; EP 2013074339 W 20131121; EP 2013074341 W 20131121; ES 13794902 T 20131121; ES 13798613 T 20131121; JP 2015543420 A 20131121; JP 2015543421 A 20131121; KR 20157015785 A 20131121; KR 20157016480 A 20131121; MX 2015006287 A 20131121; MX 2015006372 A 20131121; RS P20190020 A 20131121; RS P20190375 A 20131121; RU 2015123743 A 20131121; RU 2015124017 A 20131121; US 201314646238 A 20131121; US 201314646274 A 20131121; ZA 201503508 A 20150519; ZA 201504168 A 20150609