

Title (en)

Process for electroplating a zinc alloy coating on a steel substrate and steel substrate thus obtained

Title (de)

Verfahren zur Elektroplattierung eines Zinklegierungsüberzuges auf ein Stahlsubstrat und so beschichtetes Stahlsubstrat

Title (fr)

Procédé d'électrodéposition sur une surface d'un substrat en acier d'une couche d'un revêtement d'un alliage à base de zinc et matériau d'acier revêtu d'une couche de revêtement d'un alliage à base de zinc

Publication

EP 0622478 B1 19970806 (FR)

Application

EP 94400625 A 19940323

Priority

FR 9305038 A 19930428

Abstract (en)

[origin: EP0622478A1] The subject of the invention is a process for electroplating a layer of a coating of a zinc-based metal alloy, of the ZnX type, X being the second element of this alloy, onto a surface of a steel substrate. The process consists in depositing, between the surface of the substrate and the layer of coating of the said alloy, an undercoat layer of the said alloy with a percentage of the second element X such that the reduction potential of the said alloy of the said undercoat layer with respect to a saturated-calomel electrode is greater than or equal to or substantially less than the potential for hydrogen evolution on the steel of the substrate, in order to obtain the desired percentage of the second element X. The subject of the invention is also a coated steel material comprising a steel substrate and a coating layer of a zinc-based metal alloy.

IPC 1-7

C25D 3/56

IPC 8 full level

C25D 5/26 (2006.01); **C25D 3/56** (2006.01)

CPC (source: EP)

C25D 3/565 (2013.01)

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL PT SE

DOCDB simple family (publication)

EP 0622478 A1 19941102; EP 0622478 B1 19970806; AT E156524 T1 19970815; CA 2122198 A1 19941029; DE 69404730 D1 19970911; DE 69404730 T2 19980205; ES 2107144 T3 19971116; FR 2704560 A1 19941104; FR 2704560 B1 19950811; JP H06346280 A 19941220

DOCDB simple family (application)

EP 94400625 A 19940323; AT 94400625 T 19940323; CA 2122198 A 19940426; DE 69404730 T 19940323; ES 94400625 T 19940323; FR 9305038 A 19930428; JP 9079794 A 19940428