

Title (en)

Process for treating the surface of zinc coated alloyed sheet steel and sheet obtained thereby

Title (de)

Verfahren zur Oberflächenbehandlung von verzinkter Stahlblechlegierung und so hergestelltem Blech

Title (fr)

Procédé de traitement de surface de tôles d'acier galvanisé allié et tôle obtenue.

Publication

**EP 0890655 B1 20010530 (FR)**

Application

**EP 98401646 A 19980702**

Priority

FR 9708769 A 19970710

Abstract (en)

[origin: EP0890655A1] A surface treatment process for hot dip zinc-iron alloy coated steel sheets comprises applying a chromium (alloy) thin film of NOTGREATER 1  $\mu$  m thickness onto the alloy coating and then cold working under conditions which maintain an arithmetic mean surface roughness (Ra) of greater than 0.2  $\mu$  m. Preferably, the thin film is applied by vacuum deposition and the work hardening operation produces 0.5-4% elongation. Also claimed is a method of resistance welding a hot dip zinc-iron alloy coated steel sheet in which, prior to the actual welding operation, the sheet is surface treated as described above. Further claimed is an alloy-galvanised steel sheet which has the chromium (alloy) thin film by the above surface treatment process. The film is discontinuous and distributed in the valleys of the sheet surface roughness.

IPC 1-7

**C23C 2/26**; **C23C 28/02**

IPC 8 full level

**C23C 2/26** (2006.01); **C23C 28/02** (2006.01)

CPC (source: EP US)

**C23C 2/26** (2013.01 - EP US); **C23C 28/021** (2013.01 - EP); **C23C 28/023** (2013.01 - EP); **C23C 28/025** (2013.01 - EP)

Cited by

US9670576B2; WO2012080581A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**EP 0890655 A1 19990113**; **EP 0890655 B1 20010530**; AT E201720 T1 20010615; DE 69800855 D1 20010705; DE 69800855 T2 20011122; ES 2157647 T3 20010816; FR 2765891 A1 19990115; FR 2765891 B1 19990820; PT 890655 E 20011030

DOCDB simple family (application)

**EP 98401646 A 19980702**; AT 98401646 T 19980702; DE 69800855 T 19980702; ES 98401646 T 19980702; FR 9708769 A 19970710; PT 98401646 T 19980702