

Title (en)

PHOSPHATE TREATMENT PROCESS FOR STEEL STRIP WITH ONE GALVANISED SURFACE

Title (de)

VERFAHREN ZUR PHOSPHATIERENDEN BEHANDLUNG VON EINSEITIG VERZINKTEM STAHLBAND

Title (fr)

PROCEDE DE PHOSPHATAGE D'UN FEUILLARD D'ACIER GALVANISE SUR UNE FACE

Publication

EP 0713539 B1 19980909 (DE)

Application

EP 94924298 A 19940729

Priority

- DE 4326388 A 19930806
- EP 9402510 W 19940729

Abstract (en)

[origin: US5795408A] PCT No. PCT/EP94/02510 Sec. 371 Date Jul. 8, 1996 Sec. 102(e) Date Jul. 8, 1996 PCT Filed Jul. 29, 1994 PCT Pub. No. WO95/04842 PCT Pub. Date Feb. 16, 1995The process forms a phosphate coating on a steel strip or sheet having a galvanized or alloy galvanized side and a steel side so that the phosphate coating is only present on the galvanized or alloy galvanized side. This process includes contacting the galvanized or alloy galvanized side of the steel strip or sheet with a phosphatizing solution for 4 to 20 seconds at a temperature of from 45 DEG C. to 80 DEG C. The phosphatizing solution has an S value of from 0.08 to 0.30 and contains 0.5 to 5 g/l zinc, 3 to 20 g/l P2O5, 0.020 to 0.2 g/l nitrite, 3 to 30 g/l nitrate and 0.2 to 2.5 g/l complexing agent for iron. Chelate forming substances, such as tartaric acid, citric acid, ethylenediamine-tetraacetic acid, nitrilotriacetic acid and/or oxalic acid, may be used as the complexing agent for iron. The phosphatizing solutions may also contain other bivalent cations, particularly manganese and/or nickel cations.

IPC 1-7

C23C 22/36; **C23C 22/18**; **C23C 22/17**; **C23C 22/44**

IPC 8 full level

C23C 22/17 (2006.01); **C23C 22/18** (2006.01); **C23C 22/36** (2006.01); **C23C 22/44** (2006.01); **C23C 22/47** (2006.01)

CPC (source: EP US)

C23C 22/17 (2013.01 - EP US); **C23C 22/182** (2013.01 - EP US); **C23C 22/184** (2013.01 - EP US); **C23C 22/362** (2013.01 - EP US); **C23C 22/44** (2013.01 - EP US); **C23C 22/47** (2013.01 - EP US)

Cited by

EP0804632A4; EP1916317A1

Designated contracting state (EPC)

AT BE DE ES FR GB IT LU NL SE

DOCDB simple family (publication)

US 5795408 A 19980818; AT E170931 T1 19980915; CN 1131444 A 19960918; DE 4326388 A1 19950209; DE 59406893 D1 19981015; EP 0713539 A1 19960529; EP 0713539 B1 19980909; ES 2122318 T3 19981216; JP 3372954 B2 20030204; JP H09501202 A 19970204; WO 9504842 A1 19950216; ZA 945881 B 19960205

DOCDB simple family (application)

US 59622096 A 19960708; AT 94924298 T 19940729; CN 94193432 A 19940729; DE 4326388 A 19930806; DE 59406893 T 19940729; EP 9402510 W 19940729; EP 94924298 A 19940729; ES 94924298 T 19940729; JP 50619895 A 19940729; ZA 945881 A 19940805