

Title (en)

Process for manufacturing an object made from a steel sheet and enameled in direct mode

Title (de)

Herstellungsverfahren eines Gegenstandes aus Stahlblech und direkt-Emailliert

Title (fr)

Procédé de préparation d'un objet en tôle d'acier émaillé en mode direct

Publication

EP 0866147 A1 19980923 (FR)

Application

EP 98400466 A 19980227

Priority

FR 9703452 A 19970321

Abstract (en)

Sheet steel is pickled in acid and then given a coating which protects it against corrosion, serves as a lubricating agent during subsequent shaping and is removed by degreasing before nickel-plating and enamelling of the final article. When applied to specific steel sheet 1 mm thick, the coating will withstand 10 cycles of heat and humidity according to DIN50017 without the steel showing any sign of rust. Its lubricating ability is such that a pressed flat bottomed dish 90 mm in diameter, pickled and then coated may be further pressed to a depth of 25 mm by a punch of diameter 50 mm moving at 1.6 mms/sec without rupture up to a force of 65 kN. The coating can be completely removed by immersion in a bath containing 35 g/l sodium metasilicate, 16 g/l trisodic phosphate and 2 g/l nitroacetic acid at 60 degrees C for 3 mins, followed by immersion in water for 1 min and spraying therewith for 0.5 min.

Abstract (fr)

Procédé comprenant les étapes suivantes dans l'ordre suivant : 1/ décapage, 2/ premier traitement de surface en une seule opération satisfaisant trois critères concernant la résistance à la corrosion, la lubrification et la dégraissabilité, 3/ mise en forme, 4/ deuxième traitement de surface dit de nickelage, 5/ émaillage. Grâce à cet ordre des opérations et aux critères définissant le premier traitement de surface, on peut réaliser le décapage en ligne sur les installations de production de bandes de tôle d'acier.

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C23D 3/00

IPC 8 full level

C23D 3/00 (2006.01)

CPC (source: EP US)

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Citation (search report)

- [DA] FR 2196400 A1 19740315 - KAWASAKI STEEL CO [JP]
- [PA] EP 0765952 A1 19970402 - LORRAINE LAMINAGE [FR]

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