

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 nitriloacetic 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.

IPC 1-7

**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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