Title (en)
PROCESS FOR ELECTROLYTICALLY COATING A STEEL OBJECT ON ONE OR BOTH SIDES

Title (de)
VERFAHREN ZUM EIN- ODER BEIDSEITIGEN ELEKTROLYTISCHEN BESCHICHTEN EINES GEGENSTANDES AUS STAHL

Title (fr)
PROCEDE POUR APPLIQUER UN REVETEMENT ELECTROLYTIQUE EN ACIER, SUR L'UNE DES FACES OU SUR LES DEUX FACES D'UN OBJET

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Application
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Abstract (en)
[origin: WO9220839A1] A process for electrolytically coating a steel object on one or both sides, preferably a steel strip with zinc or a zinc-iron alloy, in which the object is connected as the cathode in a galvanic cell and metallic zinc or a zinc-iron alloy is deposited upon the object from an aqueous solution of zinc chloride with a pH of 0.1 to 3.0, and preferably 1.0 to 2.0, using insoluble anodes. For the deposition of metallic zinc, the concentration of the zinc chloride solution is set from 50 to 1000 g/l $ZnCl_2$ and that of divalent iron ions from 0.5 to 60 g/l and the mol ratio of zinc to iron in the electrolyte is maintained at 3 or over. Part of the flow of the electrolyte solution is preferably continuously fed into a column filled with metallic zinc in which the trivalent iron is reduced during electrolysis to divalent iron and at the same time metallic zinc is dissolved. In order to deposit a zinc-iron alloy, the mol ratio of zinc to iron in the electrolyte is set at under 3. The invention also includes a device for the advantageous performance of the process.

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IPC 8 full level
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