

Title (en)  
Method for producing chromate-treated plate steel material

Title (de)  
Verfahren zur Erzeugung von chromatbehandelten Stahlplatten

Title (fr)  
Méthode de production de plaque en acier traitée aux chromates

Publication  
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Application  
**EP 91122028 A 19911220**

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Abstract (en)  
[origin: EP0494431A1] According to the present invention, it is possible to produce a chromate-treated plated steel material which achieves an improved appearance thereof, particularly the minimization of a yellow tint peculiar to chromate, and enhanced corrosion resistance simultaneously and at a lower cost, which has been difficult with a prior art. There is provided a method for producing a chromate-treated plated steel material, comprising the steps of applying on at least one surface of a zinc- or zinc alloy-plated steel material a solution containing 1 to 15% by weight of chromic acid and/or reduced products of chromic acid having trivalent chromium and hexavalent chromium in the proportion of 1/2 to 1/1 by weight as the total amount of metal chromium, colloidal silica, calculated as SiO<sub>2</sub>, in the proportion of 1/2 to 6/1 of the total weight of chromium, and further 0.1 to 10% by weight of at least one selected from the group consisting of carboxylic acids and/or derivatives thereof, which are stable in said solution, heating and baking said chromate-treated steel material at a temperature ranging from 150 DEG C to 300 DEG C to form a chromate film having hexavalent chromium on the surface thereof in the proportion of 20% or less of the total weight of chromium and having a deposit of 10 to 150 mg/m<sup>2</sup> calculated as chromium.

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