

Title (en)

Coated steel sheets and process for producing the same.

Title (de)

Beschichtete Stahlbleche und Verfahren zu deren Herstellung.

Title (fr)

Tôles d'acier revêtues et procédé pour les préparer.

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Application

EP 89108750 A 19890516

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- JP 11811988 A 19880517
- JP 13831988 A 19880607
- JP 19152188 A 19880729
- JP 23226588 A 19880919
- JP 23226688 A 19880919

Abstract (en)

Disclosed are electro-plated steel sheets having a primer coating composed of 5 to 30 % by weight of Cr, 0.005 to 5 % by weight of a cationic polymer, with the balance being Zn, with or without a further Zn or Zn-alloy coating formed on the primer coating. The primer coating may contain fine particles of oxides and/or iron-group metals, and may further be applied with a chromate film and/or an organic coating. Also disclosed is the process for producing an electro-plated steel sheet having excellent corrosion resistance and surface brightness, comprising performing electro-plating in an acidic Zn plating bath containing Cr ions and cation polymer, with the ratio of Cr⁶⁺ ions/Cr³⁺ ions being not more than 0.1.

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Citation (search report)

- [A] FR 2145818 A5 19730223 - NIPPON KOKAN KK
- [AD] EP 0182964 A1 19860604 - KAWASAKI STEEL CO [JP]
- [A] CHEMICAL ABSTRACTS, vol. 101, no. 14, October 1, 1984, Columbus, Ohio, USA, KAWASAKI STEEL CORP. "Steel sheets plated on one side with zinc or zinc alloys." page 524, abstract-no. 119 424k, & Jpn. Kokai Tokkyo Koho JP - A - 59 096 291

Cited by

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