

Title (en)

Surface-treated steel strip having improved weldability and process for making.

Title (de)

Oberflächenbehandeltes Stahlband mit verbesserter Schweissbarkeit und Verfahren zu seiner Herstellung.

Title (fr)

Ruban d'acier à surface traitée ayant une soudabilité améliorée et procédé de fabrication.

Publication

EP 0184115 A1 19860611 (EN)

Application

EP 85114989 A 19851126

Priority

JP 25235584 A 19841129

Abstract (en)

A surface-treated steel strip having improved weldability is provided, comprising a metallic Cr layer deposited on a steel strip to a weight of 50 to 150 mg/m², a metallic Sn layer deposited on the chromium layer to a weight of 50 to 400 mg/m², and a chromate coating layer deposited on the Sn layer and consisting essentially of 3 to 15 mg/m² of metallic Cr and 3 to 15 mg/m² of hydrated Cr oxide calculated as elemental Cr. The surface-treated steel strip is made by subjecting the cleaned surface of a steel strip to chromium electrodeposition, rinsing the Cr-deposited strip, subjecting the strip to tin electrodeposition in an acidic bath containing 1.5 to 10 grams per liter of Sn ion at a pH of lower than 0.5, rinsing the Sn-deposited strip, and subjecting the strip to chromate treatment in a chromate bath containing up to 50 grams per liter of CrO₃ and sulfuric acid, a sulfate or fluoride at a current density of at least 10 A/dm², thereby forming a chromate coating layer consisting essentially of metallic Cr and hydrated Cr oxide.

IPC 1-7

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IPC 8 full level

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CPC (source: EP KR US)

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Citation (search report)

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- [Y] US 4421828 A 19831220 - ALLOUE RAYMOND [FR], et al
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- [Y] CHEMICAL ABSTRACTS, vol. 80, May 6 - May 20, 1974, Columbus, Ohio, USA NIPPON STEEL CORP. "Duplex plating of chromium/tin" pages 510-511, abstract no. 115486g & JP-B-73-035 136

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