

Title (en)  
TIN-PLATED STEEL PLATE AND METHOD FOR PRODUCTION THEREOF

Title (de)  
VERZINNT STEHLPLATTE UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
PLAQUE D'ACIER ETAMEE ET SON PROCEDE DE PRODUCTION

Publication  
**EP 1518944 A1 20050330 (EN)**

Application  
**EP 03733259 A 20030603**

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Abstract (en)  
A tin-plated steel sheet includes a steel sheet having a surface roughness Ra of 1.5  $\mu\text{m}$  or less, an Fe-Sn alloy layer disposed on a surface of the steel sheet, and a tin-plating layer disposed on the Fe-Sn alloy layer, the tin-plating layer having a coverage of more than 99% and a coating weight of 5 to 20 g/m<sup>2</sup>. A chemical conversion coating containing P and Si is provided on the upper surface of the tin-plating layer. In the chemical conversion coating, the coating weight of P is 0.5 to 10 mg/m<sup>2</sup> and the coating weight of Si is 3 to 30 mg/m<sup>2</sup>. A steel sheet provided with a plating layer is immersed in a chemical conversion treatment solution containing phosphate ions and a silane coupling agent or the chemical conversion treatment solution is applied to the steel sheet provided with the plating layer. Subsequently, the steel sheet is dried by heating.

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Cited by  
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