

Title (en)  
STEEL SHEET AND ENAMELED PRODUCT

Title (de)  
STAHLBLECH UND EMAILLIERTES PRODUKT

Title (fr)  
TÔLE D'ACIER ET PRODUIT ÉMAILLÉ

Publication  
**EP 3348661 A1 20180718 (EN)**

Application  
**EP 16844521 A 20160912**

Priority  
• JP 2015179722 A 20150911  
• JP 2016076847 W 20160912

Abstract (en)  
A steel sheet includes, by mass%: C: 0.0060% or less; Si: 0.0010% to 0.050%; Mn: 0.05% to 0.50%; P: 0.005% to 0.100%; S: 0.0500% or less; Al: 0.0010% to 0.010%; Cu: 0.010% to 0.045%; O: 0.0250% to 0.0700%; N: 0.0010% to 0.0045%; and a remainder: Fe and impurities, in which a structure of the steel sheet contains a ferrite, an average grain diameter of the ferrite at a thickness 1/4 position in a through-thickness direction from a surface is 20.0  $\mu\text{m}$  or less, oxides containing Fe and Mn are contained, among the oxides, a number density of oxides having a diameter of more than 1.0  $\mu\text{m}$  and 10  $\mu\text{m}$  or less is  $1.0 \times 10^3$  grains/mm<sup>2</sup> or more and  $5.0 \times 10^4$  grains/mm<sup>2</sup> or less, and a number density of oxides having a diameter of 0.1 to 1.0  $\mu\text{m}$  is  $5.0 \times 10^3$  grains/mm<sup>2</sup> or more.

IPC 8 full level  
**C21D 9/48** (2006.01); **C22C 38/00** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR)  
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