

Title (en)  
STEEL MATERIAL

Title (de)  
STAHL MATERIAL

Title (fr)  
MATÉRIAU EN ACIER

Publication  
**EP 3524707 A1 20190814 (EN)**

Application  
**EP 17925535 A 20171214**

Priority  
JP 2017044984 W 20171214

Abstract (en)  
A steel material, comprising, in terms of percentage by mass: from 0.01 to 0.20% of C, from 0.01 to 1.00% of Si, from 0.05 to 3.00% of Mn, from 0 to 0.050% of P, from 0 to 0.0100% of S, from 0.05 to 0.25% of Sn, from 0 to 0.100% of Al, from 0.0005 to 0.0100% of N, from 0.0001 to 0.0100% of O, from 0 to 0.050% of Ti, from 0 to 0.050% of Nb, from 0 to 0.050% of V, from 0 to 0.050% of W, from 0 to 0.050% of Mo, from 0 to 0.10% of Cu, Ni: from 0 to 0.05% of Ni, from 0 to 0.10% of Cr, from 0 to 0.05% of Sb, from 0 to 0.0010% of B, from 0 to 0.0100% of Ca, from 0 to 0.0100% of Mg, from 0 to 0.0100% of REM, and a balance consisting of Fe and impurities, wherein an Sn ratio of an Sn concentration, a, at a crystal grain boundary to an Sn concentration, b, inside a crystal grain, expressed by a/b, is 1.2 or less.

IPC 8 full level  
**C21D 8/02** (2006.01); **C22C 38/00** (2006.01); **C22C 38/60** (2006.01)

CPC (source: EP KR)  
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Cited by  
US11718885B2

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AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

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