

Title (en)  
STEEL MATERIAL

Title (de)  
STAHLMATERIAL

Title (fr)  
MATÉRIAUX EN ACIER

Publication  
**EP 3524707 B1 20240207 (EN)**

Application  
**EP 17925535 A 20171214**

Priority  
JP 2017044984 W 20171214

Abstract (en)

[origin: EP3524707A1] 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

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CPC (source: EP KR)

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**C22C 38/58** (2013.01 - EP KR); **C22C 38/60** (2013.01 - EP)

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