

Title (en)
COLD ROLLED STEEL SHEET AND HOT DIPPED STEEL SHEET WITH SUPERIOR STRENGTH AND BAKE HARDENABILITY AND METHOD FOR MANUFACTURING THE STEEL SHEETS

Title (de)
KALTGEWALZTES STAHLBLECH UND FEUERVEREDELTES STAHLBLECH MIT HOHER FESTIGKEIT UND WARMHÄRTBARKEIT UND VERFAHREN ZU HERSTELLUNG DER STAHLBLECHE

Title (fr)
FEUILLE D'ACIER LAMINEE A FROID ET FEUILLE D'ACIER TRAITEE A CHAUD PRESENTANT UNE RESISTANCE ET UN DURCISSEMENT A LA CUISSON SUPERIEURS ET PROCEDE DE FABRICATION DE CES FEUILLES D'ACIER

Publication
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Application
EP 05789750 A 20050322

Priority

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Abstract (en)
[origin: WO2006001583A1] Disclosed herein are a bake-hardenable high-strength cold-rolled steel sheet, a hot-dipped steel sheet thereof, and a method for manufacturing the same. The steel sheet comprises 0.0016 ~ 0.01 % of C; 0.1 % or less of Si; 0.2 ~ 1.5 % of Mn; 0.05 ~ 0.15 % of P; 0.01 % or less of S; 0.08 ~ 0.5 % of (soluble) Al; 0.0025 % or less of N; 0.003 ~ 0.1 % of Nb; 0.003 % or less of Ti; 0.01 ~ 0.4 % of Mo; 0.0005 ~ 0.005 % of B; and the balance of Fe and other unavoidable impurities, in terms of weight%. The steel sheet has fine AlN precipitates, and a grain size (ASTM No.) of 9 or more. The AlN precipitates have a grain size, which can suppress grain growth. The steel sheet has enhanced strength, bake hardenability, aging resistance, and secondary work embrittlement resistance.

IPC 8 full level
C21D 9/46 (2006.01)

CPC (source: EP US)
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Citation (search report)

- [XAYI] EP 1028172 A1 20000816 - NIPPON STEEL CORP [JP]
- [XAYI] JP H04131357 A 19920506 - NIPPON STEEL CORP
- [XAY] JP H05171353 A 19930709 - NIPPON STEEL CORP
- [A] DATABASE WPI Week 200376, Derwent World Patents Index; AN 2003-809358, XP002597317
- See references of WO 2006001583A1

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